December 10, 1986

The Fourth Regular Meeting of the Senate of The University of British Columbia for the Session 1986-87 was held on Wednesday, December 10, 1986 at 8.00 p.m. in Room 102, George F. Curtis Building.

Present: President D. W. Strangway (Chairman), Chancellor W. R. Wyman, Vice-President D. R. Birch, Ms. P. M. Arthur, Dr. E. G. Auld, Dr. T. M. Ballard, Mr. D. W. Barron, Dean G. S. Beagrie, Mrs. H. M. Belkin, Ms. M. Branson, Dr. T. H. Brown, Dean P. T. Burns, Mr. G. D. Burnyeat, Dr. T. S. Cook, Ms. L. M. Copeland, Miss A. M. Daszkowski, Dr. J. D. Dennison, Dr. D. Donaldson, Dr. G. W. Eaton, Mr. L. N. Ennis, Dr. J. A. S. Evans, Dr. C. V. Finnegan, Mrs. E. D. Fulton, Dr. J. Gaskell, Dr. J. H. V. Gilbert, Mr. K. D. Hancock, Dr. M. A. Hickling, Mrs. D. Jones, Dean R. W. Kennedy, Mr. J. Kulich, Dean P. A. Lusztig, Mrs. A. Macdonald, Dr. H. J. Matheson, Mr. J. M. McConville, Acting Dean T. D. McKie, Dean J. H. McNeill, Dean A. Meisen, Dean R. C. Miller, Jr., Dr. A. G. Mitchell, Mr. C. Niwinski, Mr. G. Olivotto, Professor D. Pavlich, Mr. S. R. Pearce, Mrs. G. E. Plant, Dean J. F. Richards, Dr. D. F. Robitaille, Mr. T. J. Savage, Dr. G. G. E. Scudder, Dr. L. de Sobrino, Dr. R. Stewart, Dean P. Suedfeld, Mr. M. Sugimoto, Mr. G. Taylor, Dr. P. R. Tennant, Dr. R. C. Thompson, Dr. J. Vanderstoep, Dean W. A. Webber, Dr. L. S. Weiler, Dean R. M. Will, Dr. D. LL. Williams, Dr. M. D. Willman, Dr. J. L. Wisenthal, Miss N. E. Woo, Mr. R. A. Yaworsky.

Messages of regret for their inability to attend were received from Dr. C. E. Armerding, Rev. P. C. Burns, Dr. M. A. Goldberg, Miss T. L. Green, Dr. K. J. Holsti, Dr. L. M. Lavkulich, Dr. D. S. Lirenman, Mr. D. McInnes, Mr. M. G. McMillan, Mr. D. M. Mustard, Dr. D. L. Weiss.

Senate membership

Replacement

Mr. Gordon Taylor, student representative of the Faculty of Medicine, replaces Neil Benson.

Minutes of previous meeting

Mr. Savage)
Dr. Wisenthal) That the minutes of the Third regular meeting of Senate for the Session 1986-87, having been circulated, be taken as read and adopted.

Carried

Business arising from the Minutes

Senate Nominating Committee (p.8798)

In accordance with established procedures vacancies had been declared at the previous meeting for a student representative and a faculty representative on the Nominating Committee.

Dr. Paul Tennant was nominated to replace Dr. Elder as faculty representative

Dr. Finnegan) That nominations close.
Dr. Cook)

Carried

Dr. Tennant was declared elected by acclamation.

Ms. Marie Branson was nominated to replace Mr. Neil Benson as student representative.

Mr. Olivotto) That nominations close.
Mr. Savage)

Carried

Ms. Branson was declared elected by acclamation.

Chairman's remarks and related questions

Dr. Strangway informed Senate that he had met with many of the College heads about issues of common concern. He reported that the discussions had been most constructive and that at the end of the meeting it was agreed that it would be useful for the College heads and representatives of UBC to meet on an annual basis.

Dr. Strangway noted that Dr. K. D. Srivastava had been appointed Vice-President of Student and Academic Services and that Dr. Nancy Sheehan had been appointed Dean of the Faculty of Education. He stated that he looked forward to working with both Dr. Srivastava and Dr. Sheehan.

Chairman's remarks and related questions (continued)

Dr. Strangway informed Senate that the Premier had responded to a suggestion by the Universities and that the name of the Ministry had been changed to the Ministry of Advanced Education and Job Training.

Dr. Strangway asked Senate to join him in paying tribute to Dr. Terry Brown who was attending his last Senate meeting. He noted that Dr. Brown had been a Senate representive of the Faculty of Pharmaceutical Sciences for 17 years and that he had been a very active member of Senate and had served on many of its committees.

Dr. Strangway also asked Senate to join him in paying tribute to Mr. Jim Banham on his retirement, and noted that during his many years as a UBC Information Officer, Mr. Banham had recorded the proceedings of the Senate meetings for use in the UBC Reports.

In conclusion, Dr. Strangway informed Senate that the following had accepted invitations to receive honorary degrees at the 1987 Congregation:

Agnes McCausland Benidickson
Alfred Earle Birney
May Brown
Reginald Norman Colbeck
George R. F. Elliot
John Arthur Jacobs
David C. Lam (See-Chai)
John Ross Mackay
James Pattison
William Robert Wyman

In response to a query, Dr. Strangway stated that the Minister of Advanced Education and Job Training was still Mr. Stanley Hagen. Dr. Strangway further noted that the Ministry was not only responsible for colleges and universities but had taken over many of the activities with respect to apprenticeship programs that had previously come under the Ministry of Labour and the Attorney General's office.

Chairman's remarks and related questions (continued)

At Dr. Strangway's invitation, Dr. Dennison responded to a query concerning the meeting with College heads. Dr. Dennison stated that those present at the meeting had expressed an interest in the mission statement of the University and had asked whether or not there was some recognition of the role of the Colleges in the mission of UBC. Questions concerning international students and their admission to UBC were raised and concerns expressed about the problems of mounting a full second year program with all of the options students needed to transfer to UBC.

Reports of Committees of Senate

Admissions Committee

Dr. Finnegan informed Senate that the Admissions Committee had requested that Dr. A. J. Elder remain on the committee as a representative of the Faculty of Arts.

School of Architecture

The Admissions Committee recommended approval of the following addition to the Calendar statement on "Re-admission":

> "Students registered in the School of Architecture after a period of absence are subject to the regulations and degree requirements in effect at the time of re-registering. Any deviation from these regulations and requirements must be approved by the Director."

It was stated in the material circulated that this change will eliminate confusion where changes have taken place to make elective courses mandatory to meet new professional registration requirements.

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Reports of Committees of Senate

Admissions Committee

School of Architecture (continued)

Dr. Finnegan)
Dean Meisen) That the addition to the Calendar statement on "Re-admission" recommended by the School of Architecture be approved.

Carried

Faculty of Arts

The committee recommended approval of the following proposal from the Faculty of Arts, subject to minor editorial changes which have been incorporated:

"Change in Sociology Honours Program - Admission to Third Year: Admission requires an overall second-class average in the second year and a standing of 75% or better in Sociology 200. Continuation to the fourth year requires an overall second-class average in the third year and an average of 75% or more in Sociology courses taken in the third year. Outstanding students from the third-year Major program may on occasion be considered for admission into the fourth-year Honours program. Interested students should consult the departmental Sociology Honours Adviser.

Third and Fourth Years: A total of 36 units including 21 units in Sociology as follows:
- Sociology 310, 318 (1.5), 350, 400, 490
- one of: Sociology 380 (1.5), 381 (1.5), 382 (1.5), 383 (1.5)
- 3 units of tutorial work organized around the completion of a substantial essay (Sociology 449).
- 3 additional units in Sociology.
- 15 additional units, of which at least 6 must be taken in other disciplines.

Music - Admission requirements:
There are no performance requirements for entrance into the B.A. program. However, students entering the first year normally should have knowledge of theoretical rudiments approaching the level of Toronto Conservatory Grade III (Harmony).

School of Library, Archival and Information Studies - change in admission requirements:
1. Admission requirements for new entrants are as follows: the candidate
   a) must possess a Bachelor's degree from a recognized university in a discipline acceptable to the Admissions Committee of the School.

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Reports of Committees of Senate

Admissions Committee

Faculty of Arts (continued)

Philosophy - change in admission requirements:
Honours: Normally applicants are expected to have obtained a first class mark in Philosophy 250 and a recommendation from a Philosophy instructor. Students are admitted to the Honours Program at the discretion of the Department."

Dr. Finnegan)
Mr. Pearce) That the proposed changes in admission requirements recommended by the Faculty of Arts be approved.

Carried

Curriculum Committee (see Appendix 'B')

Dr. Thompson presented the report on curriculum proposals submitted by the Faculties of Education, Graduate Studies, Pharmaceutical Sciences, and Science.

Faculty of Education

The committee recommended approval of changes to the current four-year B.Ed. (Elementary) and five-year B.Ed. (Secondary) programs. Dr. Thompson noted that although these changes required Senate approval, they would not appear in the Calendar since only the material pertaining to the revised programs would be included in the 1987-88 Calendar.

The committee also recommended approval of further proposals from the Faculty of Education with the exception of Art Education items from the Department of Visual and Performing Arts, which had been withheld pending satisfactory consultation with the Department of Fine Arts. Dr. Thompson informed Senate that consultation had since taken place and that this had resulted in those proposals being withdrawn. It was understood, however, that revised proposals would be submitted at a later date.

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Reports of Committees of Senate

Curriculum Committee

Faculty of Education (continued)

Dr. Thompson also noted the following changes recommended by the committee:

Modern Languages Education 394 - change prerequisite statement to read: "French 202 or 220, and satisfactory performance in oral and written French proficiency tests."

Music Education 401 - add to the Pre- or co-requisite statement "Music 309".

In continuing the report on items from the Faculty of Education, Dr. Thompson reminded Senate that when the revised programs of initial teacher education had been presented to Senate in May, concern had been expressed about the discrimination clauses under "Selection of Candidates" and discussion of those items had been postponed. The Faculty of Education had now submitted modifications to this section. The committee felt that these modifications met the concerns of Senate and therefore recommended approval.

Faculty of Graduate Studies

The committee recommended approval of proposals from the Faculty of Graduate Studies, subject to the following:

Department of Classics
Under "Information on Course Scheduling", Classical Studies 502 should read Classical Studies 503

Under "Program Statement", change the first paragraph to read: "The thesis for the M.A. in Classics may be written in one of the following fields: Greek Language and Literature, Latin Language and Literature, Greek History, Roman History, Greek or Roman Archaeology, or Ancient Philosophy."

Reports of Committees of Senate

Curriculum Committee (continued)

Faculty of Pharmaceutical Sciences

The committee recommended approval of course changes submitted by the Faculty of Pharmaceutical Sciences.

Faculty of Science

The committee recommended approval of proposals from the Faculty of Science, with the exception of the deletion of Physics 231 and 239, subject to the following:

BIOL 334 (1.5) Genetics I - change description to read: First of an integrated pair of courses stressing fundamentals of Mendelian genetics, chromosome theory of inheritance, linkage, mutation, Hardy-Weinberg equilibrium, and inheritance and gene regulation in prokaryotes. Credit will be granted for only one of Biology 334 and Agricultural Sciences 213 or Forestry 302. (3-0-2; 0-0-0)

BIOL 336 (1.5) Genetics II - change description to read: Second of an integrated pair of courses emphasizing fundamentals of eukaryotic gene regulation and genome organization, organelle genetics, transposons, mechanisms of mutation, recombination and DNA repair, as well as the fundamentals of developmental genetics. Prerequisite: Biology 334. (0-0-0; 3-0-2)

CHEM 407 - change the proposed title change to read: "Applications of Statistical Mechanics to Chemistry".

Dr. Thompson)
Dr. McKie) That the proposals of the Faculties of Education, Graduate Studies, Pharmaceutical Sciences, and Science be approved.

During the discussion that followed it was suggested that the Calendar should contain an explanation of the four letter codes used for each Department.

Reports of Committees of Senate

Curriculum Committee (continued)

Dr. McKie noted that Art Education 309 had been listed in two places in the proposed changes to Calendar entries for the Art Education Concentration and Major. Since the proposed change in number from Art Education 442 to Art Education 309, contained in the Art Education proposals, had not been approved by Senate, Dr. McKie stated that Art Education 309 should be changed back to Art Education 442.

Concern was expressed on behalf of Architecture students at the redistribution of staff resources at the expense of the undergraduate program. Dean Meisen responded that some changes had been made in the baccalaureate program. He stated that the School, like many other units in the University, had to make an assessment of how to distribute their resources. He said that both he and the Council of the School of Architecture were assured that the program offered at the baccalaureate level was sound and was in fact a good program, and he was not concerned about the reduction in the tutorial component. The Dean also noted that the program had met the expectations of the accreditation team of the Commonwealth Association of Architects. He stated that the program would provide a somewhat different education but that it would be a good education for students of Architecture at UBC.

In response to a query, Dr. Thompson stated that the committee's decision not to approve the deletion of Physics 231 and 239 was because the rationale for the proposed deletion was based on budgetary rather than academic reasons.

Dean Miller)
Dr. Williams) That the proposed deletion of Physics 231 and Physics 239 be re-incorporated.

After considerable discussion the motion was put and carried.

Reports of Committees of Senate

Curriculum Committee (continued)

The motion to approve the proposals of the Faculties of Education, Graduate Studies, Pharmaceutical Sciences, and Science was put and carried.

Continuing Education

The annual report on U.B.C. Continuing Education and Cultural Activities for 1985-86 had been circulated for information. Dr. Birch, Chairman of the Committee, spoke briefly to the report and expressed appreciation to the Director of Continuing Education, Mr. Jindra Kulich, who not only had reported on the activities offered through his own Centre but had again collated activities from a wide variety of units across the University.

Committee on Student Awards

Dr. Williams)
Dr. Gilbert)
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.

Senate agreed to a suggestion that the words "...in consultation with Dr. Julia Levy" be deleted from the description of the David A. Danielson Post-doctoral Fellowship.

Objections were raised to the reference to political affiliations in the descriptions of the David A. Danielson Post-doctoral Fellowship and the David Hemmingway Fellowship.

In amendment:

Dean Suedfeld)
Mr. Burnyeat)
That the David A. Danielson Post-doctoral Fellowship and the David Hemmingway Fellowship be referred back to the Committee on Student Awards.

Lost

The motion to approve the awards was put and carried.

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Proposals of the Faculties

Faculty of Applied Science

Dean Meisen)
Dr. Tennant) That the name of the Department of Metallurgical Engineering be changed to the Department of Metals and Materials Engineering.

Carried

Faculty of Graduate Studies

Proposal to establish a Graduate Council

The following material concerning the establishment of a Graduate Council had been circulated:

"In 1985, the Faculty of Graduate Studies struck an Ad Hoc Committee to consider the desirability of a Graduate Council. The reason for this step was that over the years a number of difficulties with the current system of Faculty governance became apparent. The Faculty of Graduate Studies comprises the great majority of members of the UBC faculty (over 1,500 individuals), with a very great range of interests and concerns. For most of them, the administrative activities of greatest interest were those in their discipline-based Departments, Schools and Faculties. The meetings and committees of the Faculty of Graduate Studies were of relatively low priority in the schedule of busy academics.

As a result, a very small percentage of the membership of the Faculty ever attended its meetings. Furthermore, even this number was usually limited to those who had a particular interest in one specific agenda item. The number of members attending eroded throughout many meetings, and their interest in what was going on did so even more dramatically. Furthermore, there was relatively little continuity from one meeting to the next. Thus, when something was brought to the floor and questions were raised, the people who originally raised the issue were frequently not there at the following meeting when the answers to these questions were provided. Those in attendance had different questions.

Clearly, this lack of representative participation and of continuity hampered the ability of the Faculty to process information effectively and to make generally satisfactory decisions. An informal survey showed that similar problems had been noted by most major North American graduate schools, which in response had established representative bodies to which many of the legislative activities of a Faculty were delegated. The Ad Hoc Committee therefore looked into the issue of whether such a move would be appropriate for UBC and if so, what form the Council should take.

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Proposals of the Faculties

Faculty of Graduate Studies

Proposal to establish a Graduate Council (continued)

In the Fall of 1985, the Ad Hoc Committee submitted its report. It recommended that a representative Graduate Council be established, and made some proposals considering its composition and functions. These recommendations were discussed at two meetings of the Faculty of Graduate Studies and at one meeting of each of the other Faculties. Support for the proposal was obtained from the Executive Committee of the Faculty of Graduate Studies and from the Committee of Deans. A mail ballot in the Spring of 1986 indicated a 50% margin in favour of the establishment of a Graduate Council by the members of the Faculty (for 346, against 234). At that point, another Ad hoc Committee, called the Implementation Committee, was established to work out the details of the composition, duties and procedures of the Graduate Council. This report was approved by the Executive Committee of the Faculty of Graduate Studies and was discussed at a meeting of the Faculty. It was then submitted to a mail ballot, and was approved by a margin of almost 3:1. It now comes to Senate for final approval.

It should be noted that the regulations governing the Council allow for considerable latitude in referring matters to the Faculty of Graduate Studies as a whole. It is intended that any major change in the principles that govern the Faculty will be submitted for approval to the entire body; in addition, a relatively small percentage of either the membership of the Faculty or the membership of the Graduate Council can submit a binding request for such a meeting. All meetings of the Graduate Council will be open to all members of the Faculty, although only Council members will have the vote. Two annual meetings of the Faculty will still be held, at which issues dealt with by the Graduate Council can be further discussed. The Graduate Council will assume the routine legislative and advisory duties of the Executive Committee and of most Faculty meetings. Further details, as outlined in the recommendations of the Implementation Committee, are as follows:

Recommendations

1. Membership of the Graduate Council

The Graduate Council should consist of 64 members representing each Faculty involved in graduate education. The majority of the Graduate Council should be elected by the Faculties based on the number of faculty and graduate students in each Faculty. Therefore the Graduate Council should consist of:

A. Ex Officio Members (5)

i. Dean, Faculty of Graduate Studies (Chairman of the Council)
ii. Associate Deans, Faculty of Graduate Studies
iii. University Registrar (non-voting member and Secretary of the Council)
iv. Vice President Research (or his/her designate)

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Proposals of the Faculties

Faculty of Graduate Studies

Proposal to establish a Graduate Council (continued)

B. Elected Faculty Members (52)

i. The Faculties should elect 50 members according to distribution in Appendix 1. Only members of the Faculty of Graduate Studies are eligible to vote or be elected to the Graduate Council.

ii. The Graduate Council should review the distribution of these elected members every five years and make appropriate changes.

iii. Faculty members of Senate elected by the Faculty of Graduate Studies will serve as members-at-large (two at present).

iv. Each Faculty should determine their own procedures to elect their representatives under i.

v. The number of elected representatives under i will be fixed at 50, only the distribution can change.

vi. The elections of faculty members should be completed by October 15.

C. Elected Student Members (7)

i. The Graduate Student Society should elect 6 members according to the distribution in Appendix 2. The elected students must be registered in the Faculty of Graduate Studies.

ii. The Graduate Council should review the distribution of these elected members every five years and make any appropriate changes.

iii. The student member of Senate elected by the students in the Faculty of Graduate Studies will serve as a member-at-large.

iv. The Graduate Student Society should determine its own procedures to elect the representatives under i.

v. The number of elected representatives under i will be fixed at 6, only the distribution can change.

vi. The election of student members should be completed by October 15.

D. Term of Membership

i. The term of membership on the Graduate Council for the graduate students should be one year.

ii. The term of membership on the Graduate Council for the elected faculty should be three years.

iii. The terms of the elected faculty members should be staggered such that one-third of faculty members are elected each year.

iv. Either student or faculty members may be re-elected without limit.

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Proposals of the Faculties

Faculty of Graduate Studies

Proposal to establish a Graduate Council

D. Term of Membership (continued)

Since this committee proposes staggered terms for the elected faculty members, in the initial instance members will be elected for one-, two-, and three-year terms. This shall be determined by lot after the first election.

v. The position of a Graduate Council member shall be declared vacant by the Secretary of the Graduate Council when he has received notice that the member has resigned, or that the member is going on leave for a period of more than six months, or that the member has been granted disability leave. Any elected member may be granted a leave of absence for up to two consecutive ordinary meetings of the Graduate Council. Any absence without leave for three consecutive ordinary meetings shall result in a declaration of vacancy by the Secretary of the Graduate Council. No one may appoint a proxy to act in the member's absence.

vi. If an elected member (graduate student or faculty) must be replaced, then a new member must be elected using whatever procedures the affected unit (Faculty or Graduate Students Society) deems proper.

2. Powers and Duties of the Graduate Council

Under the University Act the Faculty of Graduate Studies has various powers and duties relating to the academic quality of graduate studies at the University. Some of these powers will be delegated to the Graduate Council, which will be constituted as in Section 1 and which will operate as detailed in Section 3.

The powers and duties of the Council, acting on behalf of the Faculty, will be:

i. subject to Senate approval, and appeal to the Faculty, to make rules and regulations for the government, direction and management of the Faculty of Graduate Studies and its affairs and business;

ii. subject to Senate approval, and appeal to the Faculty, to determine, and to review proposals for changes in, the courses of instruction and programs in the Faculty of Graduate Studies;

iii. to advise the Dean of the Faculty on scholarships and matters associated with graduate research within the University;

iv. generally, to deal with all matters assigned to it by the Faculty and the Dean.

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Proposals of the Faculties

Faculty of Graduate Studies

Proposal to establish a Graduate Council

2. Powers and Duties of the Graduate Council (continued)

It will be the responsibility of the Graduate Council, acting on behalf of the Faculty to ensure adherence to requirements of the Senate of the University regarding programs of study. This administrative authority of the Faculty shall be vested in the Graduate Council. In all matters concerning admission, programs and examinations, the Dean and Associate Deans act, with the Registrar, as administrative officers for the Graduate Council.

3. Operational Procedures for the Graduate Council

A. Meetings of the Graduate Council

i. There shall be at least four regular meetings of the Graduate Council scheduled each academic session, September through May. A regular meeting may be cancelled by the Coordinating Committee (cf. 3-B-iv) if there is neither urgent nor sufficient business. The agenda for the regular meetings shall be set by the Coordinating Committee and delivered to the Faculty of Graduate Studies membership at least 10 days prior to the meeting.

ii. The quorum for the Graduate Council meetings will be 60% of the total Graduate Council membership, other than the Chairman.

iii. Meetings of the Graduate Council are open to Graduate Studies Faculty and others invited by the Chairman. Normal business shall be conducted with members of the Graduate Council allowed to propose and second motions, and to vote. During the course of discussion the chairman may invite comments from the visitors.

iv. The usual order of agenda shall be

Record messages of regret from absentees
Correspondence
Membership - declarations of vacancies and new members
Unfinished business from earlier meetings
Minutes of previous meetings
Business arising from the minutes
Chairman's remarks
Reports of standing committees
Reports of other committees
Other business

Any matter not already on the agenda of a regular meeting may, at the request of a member from the floor of the Graduate Council and at the discretion of the Chair, be included on the agenda under other business. Any member may request in writing to the Secretary of the Graduate Council an agenda item for the next meeting of the Graduate Council. A member may give notice of a motion from the floor of the Graduate Council and the motion shall be on the agenda for the next regular meeting.

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Proposals of the Faculties

Faculty of Graduate Studies

Proposal to establish a Graduate Council

3. Operational Procedures for the Graduate Council

A. Meetings of the Graduate Council (continued)

v. The Registrar will perform the same duties for the Council as for the Faculties.

B. Committees of the Graduate Council

i. The standing committees of the Graduate Council will include Coordinating, Curriculum, Scholarships, and Nominations. Graduate Council may delegate its responsibility to a standing committee by a 2/3 vote. Elected members of Graduate Council are eligible for membership on any committee. The Graduate Council may establish standing or ad hoc committees as needs arise.

ii. When a vacancy in a standing committee occurs or is expected to occur, the chairman of the standing committee shall notify the Nominations Committee. The vacancy should be announced in a regular meeting agenda before the vacancy is filled.

iii. Every Graduate Council committee shall be free to include additional members, whether they be members of the Graduate Council or not. The majority of the committee must vote in favour of the additional member and the Coordinating Committee must also vote in favour of the additional member. Those persons proposed shall not attend meetings of these committees until the Coordinating Committee approved of their becoming members. The membership addition shall be reported and ratified at the next regular Graduate Council meeting.

iv. The Coordinating Committee of the Graduate Council will serve to prepare agenda and background material for the Graduate Council and to perform executive tasks between Graduate Council meetings. The Coordinating Committee of the Graduate Council shall consist of the Dean of the Faculty of Graduate Studies as chairman, a Vice-chairman, a Secretary, the Chairmen of the Standing Committees, and both Associate Deans of the Faculty of Graduate Studies. The Vice-chairman shall be one of the Associate Deans of Graduate Studies. The Vice-chairman shall also chair the meetings in the absence of the Chairman. The Secretary of the Coordinating Committee shall be appointed from the Graduate Council membership.

v. The terms of reference of each standing committee shall be determined by the Coordinating Committee and approved by the Graduate Council.

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Proposals of the Faculties

Faculty of Graduate Studies

Proposal to establish a Graduate Council

3. Operational Procedures for the Graduate Council

B. Committees of the Graduate Council (continued)

vi. An additional meeting of the Graduate Council may be called to discuss particular topics. It may be called by the Chairman of the Graduate Council at his discretion on consultation with the Coordinating Committee. An additional meeting must be called by the Chairman upon a motion of the Graduate Council carried by a simple majority of those voting.

vii. There shall be at least two meetings per year of the full membership of the Faculty of Graudate Studies to approve the awarding of degrees, and to allow the Dean to solicit advice from the membership and to report on the operation of graduate studies at the University.

viii On any proposed recommendation(s) of the Graduate Council, 25% of the membership of the Council, or 5% of the membership of the Faculty of Graduate Studies, may request a mail ballot, or a referral to a Special Meeting of the Faculty of Graduate Studies called for the sole purpose of discussing the proposed recommendation(s).

ix. A notice of a Special Meeting shall describe the purpose of the meeting and be given to all members of the Faculty of Graduate Studies at least 10 days before the meeting. The Special Meeting shall only concern itself with matters outlined in that agenda. The quorum for any Special Meeting shall be 10% of the members of the Faculty of Graduate Studies.

4. Faculty Review of the Graduate Council

The two annual meetings of the full membership (section 3-B-vii) and the Special Meetings (section 3-B-ix) provide an opportunity for faculty to review the operation of the Graduate Council.

A formal review of the Graduate Council should also be conducted as follows:

i. After the Graduate Council has functioned for two years, a committee shall be formed which will review its operation and propose a motion on the future of the Graduate Council to be submitted to the entire Faculty.

ii. The Committee shall be composed of eighteen individuals: six elected by and from the Graduate Council and one elected by each of the twelve faculties in the University.

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Proposals of the Faculties

Faculty of Graduate Studies

Proposal to establish a Graduate Council

4. Faculty Review of the Graduate Council (continued)

iii. Prior to the vote of the entire Faculty there shall be at least one meeting of the Faculty at which the motion is discussed.

iv. The vote on the motion shall be conducted by mail ballot by the end of the third year following the establishment of the Graduate Council. Passage should require a simple majority.

Appendix 1. Elected Faculty Members to the Graduate Council

The distribution of the 50 faculty members elected by the Faculties shall be based on the number of faculty members who are members of the Faculty of Graduate Studies and on the number of graduate students in each Faculty. The data for 1985/86 is given in Table 1.

Table 1. Distribution of Faculty, Graduate Students and Elected Faculty Members of the Graduate Council.[1]

Faculty	Faculty Members		Graduate Students Total		Graduate Students Doctoral[2]		Faculty Elected to Graduate Council	
	#	%	#	%	#	%	#	%
AgSc	51	3	133	3	38	3	2	4
ApSc	124	8	486	13	127	11	5	10
Arts	457	30	686	18	245	21	12	24
Comm	94	6	439	11	66	6	4	8
Dent	18	1	3	.1	--	--	1	2
Educ	175	12	925	24	128	11	6	12
Frst	29	2	89	2	38	3	2	4
Gr St	11[3]	.7	87	2	6	.5	1	2
Law	24	2	20	.5	20	2	1	2
Medi	236	16	215	6	70	6	6	12
Phar	18	1	33	1	13	1	1	2
Scie	278	18	740	19	408	35	9	18
	1515		3856		1159		50	

[1] Based on enrolment and faculty data for 1985/86

[2] Includes Ph.D., Ed.D., D.M.A., LL.M.

[3] Includes only faculty in units that report directly to the Faculty of Graduate Studies.

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Proposals of the Faculties

Faculty of Graduate Studies

Proposal to establish a Graduate Council (continued)

Appendix 2. Elected Student Members to the Graduate Council

The representation of the 6 graduate students elected by the Graduate Student Society should be based on the number of graduate students in each Faculty. There should be one graduate student from each of the following units (the numbers in parentheses are the 1985/86 number of graduate students in the unit):

Faculty of Education	(925)
Faculty of Science	(740)
Faculty of Arts	(686)
Faculty of Applied Science	(486)
Faculty of Commerce	(439)
All other Faculties	(580)

Calendar Statement

Graduate Council

The legislative and administrative authority of the Faculty regarding graduate programs of study is vested in the Graduate Council. In all matters concerning admission, scholarships, programs and examinations, the Dean and Associate Deans act, with the Registrar, as administrative officers for the Graduate Council.

Membership of the Graduate Council

Ex-officio Members - The Dean (Chairman) and the Associate Deans of the Faculty, the Registrar (Secretary), and the Vice-President (Research).

Elected Members - Fifty faculty elected by and from the members of the Faculty of Graduate Studies; two faculty members of Senate elected by the Faculty of Graduate Studies.

Elected Student Members - Six members by and from students registered in the Faculty of Graduate Studies; one student member of Senate elected by the students of the Faculty of Graduate Studies."

Dean Suedfeld)
Dean Burns) That the proposal of the Faculty of Graduate Studies to establish a Graduate Council be approved.

Carried

December 10, 1986

Other business

Ms. Arthur)
Mrs. Jones) That the Chairman of Senate write to Dr. Elder expressing Senate's regret at her resignation from Senate.

Carried

Report of the Tributes Committee (in camera)

Emeritus status

In presenting the report, Dr. Dennison reminded Senate that at the October 15, 1986 meeting a resolution was passed that early retirees would be eligible for emeritus status with a minimum of 10 years service and a minimum of seventy "points", in a combination of age and years of service. The committee recommended that the following early retirees, together with Clinical faculty of the Faculty of Medicine, recommended by the Dean of Medicine, be offered emeritus status:

Early retirees

Dr. C. T. Anderson	- Associate Professor Emeritus of Mathematics
Dr. D. G. Brown	- Professor Emeritus of Philosophy
Ms. F. Bailey	- Librarian Emerita
Ms. R. Butterfield	- Librarian Emerita
Mr. D. D. Caspersen	- Assistant Professor Emeritus of Mathematics and Science Education
Dr. K. Cole	- Professor Emerita of Botany
Dr. W. L. Dunn	- Professor Emeritus of Pathology
Mrs. M. Forster	- Assistant Professor Emerita of Mathematics and Science Education
Mr. L. G. Jahnke	- Professor Emeritus of Law
Dr. R. E. Kucera	- Associate Professor Emeritus of Geological Sciences
Mr. R. F. Merriam	- Assistant Professor Emeritus of Mathematics and Science Education
Dr. J. R. Mitchell	- Associate Professor Emeritus of Physical Education and Recreation
Dr. P. Montgomery	- Associate Professor Emerita of Educational Psychology and Special Education
Dr. M. W. Ovenden	- Professor Emeritus of Geophysics and Astronomy
Mrs. M. Pahr	- Librarian Emerita
Mrs. J. L. Pavelich	- Senior Instructor Emerita of English
Dr. C. D. Pennock	- Associate Professor Emeritus of Language Education
Mrs. M. Pomfret	- Assistant Professor Emerita of Physical Education and Recreation
Dr. L. A. Rousseau	- Associate Professor Emeritus of Mathematics and Science Education

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Report of the Tributes Committee (in camera)

Emeritus status

Early retirees (continued)

Dr. R. J. Rowan	- Professor Emeritus of Philosophy
Mr. J. M. Smith	- Senior Instructor Emeritus of Mathematics and Science Education
Dr. J. R. Stein	- Professor Emerita of Botany
Ms. J. M. Weakland	- Associate Professor Emerita of Visual and Performing Arts
Mr. R. B. White	- Assistant Professor Emeritus of Educational Psychology and Special Education

Clinical faculty

Dr. R. J. Cowan	- Clinical Professor Emeritus of Surgery
Dr. J. Dick	- Clinical Associate Professor Emeritus of Medicine
Dr. L. Fratkin	- Clinical Associate Professor Emeritus of Surgery
Dr. P. Gofton	- Clinical Professor Emeritus of Medicine
Dr. S. Maddin	- Clinical Professor Emeritus of Medicine
Dr. B. Paige	- Clinical Professor Emeritus of Medicine
Dr. C. Robinson	- Clinical Professor Emeritus of Surgery
Dr. R. Simpson	- Clinical Associate Professor Emeritus of Anaesthesia
Dr. A. Waldie	- Clinical Associate Professor Emeritus of Family Practice
Dr. M. Walters	- Clinical Professor Emeritus of Medicine

Dr. Dennison)
Mrs. Fulton) That the recommendations of the Tributes Committee concerning emeritus status be approved.

Carried

The meeting adjourned at 9.30 p.m

The next regular meeting of Senate will be held on Wednesday, January 21, 1987.

Secretary

Confirmed,

Chairman

December 10, 1986

APPENDIX 'A'

New awards recommended to Senate

Jaswant S. Berar Memorial Prize - A prize in the amount of $300 has been established by Ab, Sodi and Vic Berar in memory of Jaswant S. Berar. The award will be made on the recommendation of the Faculty of Medicine to an outstanding student in Medicine 450 (Principles of Medicine). Preference will be given to a student with an interest in diabetes or arthritis. (Available 1987/88 Winter)

Dr. Gordon C. Butler Memorial Bursary - Through the UBC Health Sciences Centre Hospital, an endowment fund has been established in memory of Dr. Gordon C. Butler. Until his death in 1982, Dr. Butler provided skilled and compassionate care to northern native people. The income from the endowment provides bursaries to a total of $1,500 per year to status or non-status Indians or Inuit who have enrolled in or are currently majoring in the health or social sciences at the University of British Columbia. Normally, three bursaries of $500 each will be awarded. Should three students not be eligible in any one year, any unused bursary funds will be capitalized into the endowment. (available 1986/87 Winter)

Campney & Murphy Prize in Creditors' Remedies - Prizes to a total of $750, the gift of the law firm of Campney & Murphy, will be awarded annually to students who achieve the highest standing in each section in Law 317 (Creditors' Remedies). The prizes will be awarded on the recommendation of the Faculty of Law. (Available 1986/87 Winter)

Chevron Canada Resources Limited Scholarship in Engineering - A scholarship in the amount of $1,000 has been made available by Chevron Canada Resources Limited. The award will be made on the recommendation of the Faculty of Applied Science, to an undergraduate student entering the final year in Engineering. (Available 1987/88 Winter)

David A. Danielson Post-doctoral Fellowship - A post-doctoral fellowship in the amount of $18,000 has been made available by Hardial Bains to honour the name of David A. Danielson, a communist since the 1930's and member of the Communist Part of Canada (Marxist-Leninist). David Danielson who died of cancer in Victoria, B.C. in 1986 left his estate to Hardial Bains, the leader of the CPC (ML). The fellowship will be awarded to an individual on the basis of merit for cancer research in tumour immunology, on the recommendation of the Department of Microbiology. (Available 1987/88 Winter).

O. Gorde Davies Memorial Scholarship - A scholarship in the amount of $500 has been established by family and friends of O. Gorde Davies in recognition of the high standards of community practice demonstrated throughout his professional career. In selecting the candidate, consideration will be given to performance in Pharmacy 469 (Professional Practice Clerkship), overall academic achievement and community involvement. The award will be made on the recommendation of the Faculty of Pharmaceutical Sciences in consultation with a representative of the donor.

December 10, 1986

APPENDIX 'A'

New awards recommended to Senate (continued)

Honourable Kenneth S. Fawcus Memorial Scholarship - A scholarship in the amount of $500 will be awarded annually to a student demonstrating high academic achievement, in the first or second year of study in the Faculty of Law. This award is given in memory of the Honourable Kenneth S. Fawcus by members of the law firm of Fraser Gifford in which he was a partner and by his family, friends and classmates. It honours an individual who was a leading practitioner, judge and teacher and contributed fully to the legal life of the province. The award will be made on the recommendation of the Faculty of Law. (Available 1987/88 Winter)

Festival of Forestry Expo 86 Travel Bursary - A bursary in the amount of $1,000 has been offered by the Festival of Forestry Society, to an undergraduate Forestry student enrolled in FRST 452 (Regional Field Studies in Forestry and Forest Products). The award will be made to a student demonstrating financial need and a sound academic record. Students wishing to be considered should contact the Office of the Dean of Forestry by April 15th. The award will be offered for a five-year period commencing in 1986/87.

Leona R. Goodeve Memorial Bursary - A bursary in the amount of approximately $250 has been established by colleagues, students and friends, in memory of Leona R. Goodeve, B.S.P. (Sask.), M.Sc.Phm., (Toronto), Senior Instructor in Pharmaceutics in the Faculty of Pharmaceutical Sciences. The award will be made annually to an undergraduate pharmacy student who combines satisfactory academic standing with a need for financial assistance. (Available 1987/88 Winter)

David Hemmingway Fellowship - A fellowship in the amount of $5,000 to honour the name of David Hemmingway, a member of the Communist Party of Canada (Marxist-Leninist), has been made available by Hardial Bains, leader of the CPC (ML). The fellowship will be awarded on the recommendation of the Faculty of Graduate Studies, in consultation with the Department of Microbiology to a graduate student with a demonstrated interest in tumour immunology. (Available 1987/88 Winter)

Dr. Wilfred Arthur Jefferies Memorial Scholarship - A scholarship in the amount of approximately $125 has been endowed by the family and friends of Dr. Wilfred Arthur Jefferies. The award will be made on the recommendation of the Faculty of Dentistry to a student entering fourth year who has demonstrated special interest and aptitude in crown and bridge work. (Available 1987/88 Winter)

Thomas William Lewis Memorial Bursary - A bursary in the amount of $500 has been established in memory of Thomas William Lewis by the late Vera Harriet Lewis. The award will be made to a student who is worthy and deserving of assistance. (Available 1987/88 Winter)

APPENDIX 'A'

New awards recommended to Senate (continued)

Mawhinney & Kellough Service Scholarship - The firm of Mawhinney & Kellough, Barristers and Solicitors, will award annually a service scholarship to a student who is in his or her second year of legal studies in the Faculty of Law. The scholarship consists of employment with thefirm in the summer between the second and third year of legal studies, the payment of tuition fees for the third year of studies, and a book allowance of $200. (Available 1987/88 Winter)

McAlpine & Hordo Service Scholarship - The firm of McAlpine & Hordo, Barristers and Solicitors, will award an annual service scholarship to a student in his or her second year of legal studies in the Faculty of Law who has achieved high academic standing. The scholarship consists of payment of the tuition fees for the third year of studies, a book allowance of $200, and employment with the firm during the summer between second and third year. The award will be made on the recommendation of the Faculty of Law. (Available 1987/88 Winter)

Mead Johnson Prize in Paediatric Nursing - A prize of $500, made possible by a grant from Mead Johnson Canada, will be awarded annually to the Master's student in the graduating year specializing in the nursing care of children, whose record in the opinion of the School is the most outstanding. The award will be made on the recommendation of the School of Nursing. (Available 1986/87 Winter).

Pearl Kerr Mossfield Memorial Scholarship - A scholarship in the amount of approximately $350 has been established by family and friends of Pearl Kerr Mossfield. The award will be made on the recommendation of the School of Music to a worthy piano student who is specializing in vocal and/or instrumental accompaniment. (Available 1987/88 Winter)

Physiotherapy Association of B.C. Prize in Physiotherapy - A prize in the amount of $50 has been offered by the Physiotherapy Association of B.C. The award will be made on the recommendation of the School of Rehabilitation Medicine to a student in the final year of the physiotherapy program for general proficiency in physiotherapy. (Available 1986/87 Winter)

Neville Scarfe Memorial Prize - A prize in the amount of approximately $200 has been established in memory of Neville Scarfe by his family and friends. Dean Scarfe was regarded as one of the most distinguished scholars in the field of education when he was appointed to head the newly established Faculty of Education at UBC. Dean Scarfe continued to take an active interest in his academic discipline, geography, and more generally, the social studies. The award will be made on the recommendation of the Faculty of Education to an outstanding student intending to teach social studies, and enrolled in the final year of the B.Ed. program. (Available 1987/88 Winter)

December 10, 1986

APPENDIX 'A'

New awards recommended to Senate (continued)

Maxine Sevack Memorial Scholarship - A scholarship in the amount of $500 has been made available by the Maxine Sevack Memorial Foundation. Maxine Sevack was a student in the Department of Creative Writing. Following graduation, she established herself as a successful magazine journalist. She died in a plance crash in Guatemala in her 28th year. The award will be made on the recommendation of the Department of Creative Writing to a student who has completed at least one year of study and shows promise in non-fiction writing. In making the award, the candidate's financial circumstances may be considered. (Available 1987/88 Winter)

Walter Shukin Memorial Scholarship - A scholarship in the amount of $1,000 has been made available by Klohn Leonoff Ltd. and the Paul Poohachow family in memory of Walter Shukin. Walter graduated in Civil Engineering from UBC in 1970, and had been a highly esteemed member of Klohn Leonoff Ltd. from time of graduation until his death in 1986. The award will be made to an undergraduate student entering the fourth year soil mechanics program who combines a high academic standing with participation in other university or professional activities. The award will be made on the recommendation of the Department of Civil Engineering. (Available 1987/88 Winter)

3M Company Clinical Prize - A prize in the amount of $500 has been made available by 3M Canada Inc. The award will be made annually to a third year dental student who demonstrates proficiency in operative dentistry, with special emphasis on the newer restorative materials. The award will be made on the recommendation of the Faculty of Dentistry. (available 1986/87 Winter)

Trial Lawyers Association of British Columbia Kenneth S. Fawcus Memorial Prize in Civil Litigation - A prize in the amount of $200 will be awarded annually to a student in the Faculty of Law who achieves high academic standing in a course in Civil Litigation. This award is given by the Trial Lawyers Association of British Columbia to honour the Hon. Kenneth S. Fawcus who throughout his career, both as a lawyer and as a Justice of the Supreme Court of British Columbia, exemplified the best traditions of the bar. The donor hopes that this memorial prize will instill in its recipients a desire to strive for excellence in all aspects of trial practice. The award will be made on the recommendation of the Faculty of Law. (Available 1986/87 Winter)

University Women's Club of Vancouver, Ruby B. Riddell Scholarship in Music - A scholarship in the amount of $700 has been made available in memory of Ruby B. Riddell by her niece, Mrs. J. Mainel, through the University Women's Club of Vancouver. The award will be made to a woman student proceeding towards a degree in Music at UBC. In making the award, the candidate's financial circumstances may be considered. The award will be made on the recommendation of the School of Music. (Available 1987/88 Winter)

December 10, 1986

APPENDIX 'B'

Course and curriculum proposals

FACULTY OF EDUCATION

The following proposals apply to the current four-year B.Ed. (Elementary) and five-year B.Ed. (Secondary) programs and will not appear in the 1987-88 Calendar which will include the material pertaining to the revised programs approved in May 1986:

Language Education

Change program description to:

(5) Language Arts Concentration

6 units from English Education 335, 340, 341, 478, 480, 486, 489;
3 units from the preceding courses or from English Education 337, 338, 349, 416, 435; Library Education 389; Reading Education 473, 475; Special Education 312, 313, 315; or 3 units approved by the Head, Department of Language Education.

Change program description to:

(11) Reading Education Concentration

Reading Education 305 is a prerequisite.
4.5 units from Reading Education 472, 473, 475 (pre-service only), 476 (experienced teachers only), 477;
3 units from English Education 335, 341, 478, 480, 489;
1.5 units from English Education 337, 338, 349, 486; Library Education 389; Reading Education 474; Special Education 312; or 1.5 unit elective approved by the Head, Department of Language Education.

Visual and Performing Arts in Education

Change program description to:

(8) Music Education Concentration and Major

. . .

Major

Fourth Year: Music Education 302, 303; and 12 units from Music Education 104, 105, 307, 321, 335, 336, 401, 405, 435, 436, Music 102, 112, 122.

Change program description to:

(1) Art Education Concentration and Major

. . .

Concentration

. . .

Fourth Year: Art Education 302 and 425; one of Art Education 303, 305, 307, 309, 321.

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APPENDIX 'B'

Course and curriculum proposals

FACULTY OF EDUCATION

Visual and Performing Arts in Education (continued)

Major

. . .

Fourth Year: Nine units of Art Education 303, 305, 307, 309, 321, or 401; Art Education 425 and 441.

Change program description to:

(2) Art Education Concentration and Major

. . .

Concentration

Third Year: Art Education 303, 305, 307, 321, or 401;

. . .

Major

Third Year: Art Education 341; one of Art Education 303, 305, or 321; one of Art Education 307 or 401.

Teacher Education - curriculum changes

Proposed calendar entry:

VI. THE DIPLOMA IN EDUCATION

The Faculty of Education offers . . .

. . . towards the requirements of a Diploma in Education.

D. Fields of Specialization

+ Adult Education
Art Education
Business Education
Computing Studies Education
Curriculum and Instructional Studies
Educational Psychology
* Education of the Deaf
* Education of the Mentally Retarded
* Education of the Visually Impaired Children
Education of Young Children
English Education
English as a Second Language
French Education
Guidance Studies
Industrial Education
Library Education
Mathematics Education
Mathematics and Science Education
Multicultural and Minority Education
Music Education
Physical Education
Reading Education

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APPENDIX 'B'

Course and curriculum proposals

FACULTY OF EDUCATION

Teacher Education - curriculum changes

D. Fields of Specialization (continued)
Science Education
Special Education
Special Education of Infants
Values Education
Visual and Performing Arts in Education

NOTES:-

+ Some non-graduates may be admitted in this field. **Prerequisite: two years' experience in adult education.**

* Full-time study during a regular winter session is required. Completion of a program in this field requires extensive practica and partially satisfies requirements for a British Columbia teaching certificate. Enrollment is limited; interested applicants should apply early as the selection of applicants is normally completed by March 1.

Language Education

Changes LIBE 381, 382, 383, 384, 387, - change description

MLED 394 - change prerequisite (see p.8812)

Changes MUED 400 (3) - change to divide into four courses:
MUED 335 (1) Orff I
MUED 336 (1) Kodaly I
MUED 435 (1) Orff II
MUED 436 (1) Kodaly II

MUED 401 - change in title, units, description and hours (see p.8812)
MUED 106 - change in number (was 402), title, description, hours

Deletions MUED 101, 102, 103, 201

Modifications to the "Selection of Candidates" section of the proposal for revised programs of initial teacher education

"5. Selection of candidates

The selection of candidates for admission will be by majority vote of an Admissions Committee which represents both academic and professional interests of the Faculty. Consideration will be given to all applicants who satisfy the minimum admission requirements. In addition,

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APPENDIX 'B'

Course and curriculum proposals

FACULTY OF EDUCATION

Revision of Initial Teacher Education Programs

Section 5. "Selection of Candidates" (continued)

a. Each applicant must submit for the consideration of the Committee a statement of relevant experience on the appropriate form provided by the Registrar.

b. Each applicant must arrange for the Committee to receive two confidential statements from referees qualified to attest to the applicant's suitability for teaching.

c. An interview may be required as a part of the admissions procedure; applicants, similarly, may request a personal interview. Applicants are responsible for their own expenses in attending admissions interviews.

The Committee will consider such factors as maturity, experience, emotional and physical characteristics relevant to the demands of the program, and writing and speaking abilities. Expressed motivation and demonstrated interest in a teaching career will also be taken into account."

FACULTY OF GRADUATE STUDIES

Architecture

Master of Advanced Studies in Architecture

Proposed Calendar Changes (referenced to 85/86 Calendar)

p. 134 under the heading "C. Program Options 1. Full-time study c) the following programs may be pursued only by full-time study," delete "Architecture" from the list of programs.

p. 138 column 1, delete the first full paragraph commencing "In order to fulfill the ..." and the entire material remaining in this section, and replace with the following:

"In order to fulfill the requirements for the degree of Master of Advanced Studies in Architecture, the student must complete the course of study for a total of 15 units. Full-time students are required to put in no less than two terms of full-time attendance in the program. Part-time study, as defined in this section of the Calendar, is allowed and encouraged, but only with the approval of the Graduate Program Committee of the School of Architecture.

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APPENDIX 'B'

Course and curriculum proposals

FACULTY OF GRADUATE STUDIES

Architecture

Master of Advanced Studies in Architecture

Proposed Calendar Changes (referenced to 85/86 Calendar) (continued)

"Full-time students normally complete this program within two academic years. No longer than five years may elapse between first registration and satisfactory completion of the entire program, including the thesis.

"Course of Study: First Year

"Architecture 500 (0) Graduate Seminar
and 9 units of courses selected in consultation with the student's advisor, including a minimum of 6 units from courses at the 500 level offered by the School of Architecture and other Departments, some of which must be related to the student's research interests; 1.5 units of courses should be in Research Methods if the student has no background in this area; and Architecture 549 (6 units) Thesis for the MASA degree

"Areas of Study

"Research activities and thesis development will be focussed within four areas of study, as follows:

- the technology of building systems and environments;
- design research for special populations (e.g. children, the elderly);
- architectural theory and criticism;
- housing, urban design and development.

The thesis may take the form of research or an innovative design investigation, or be a combination of both these forms. A thesis defence is required."

New ARCH 509 (1.5/3)d Facilities Programming

Changes
ARCH 500 - change in units and description to: (0)
ARCH 503 - change in units to: (1.5/3)d
ARCH 504 - change in units and description to: (1.5/3)d
ARCH 508 - change in units and description to: (1.5/3)d
ARCH 512 - change in title, units and description to: Urban Design Studies (1.5/3)d
ARCH 532 - change in units and description to: (1.5/3)d
ARCH 548 - change in number, title, description, units to: Special Topics (1.5/3)d (was 547)
ARCH 549 - change in title, units to: (6) - delete description

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APPENDIX 'B'

Course and curriculum proposals

FACULTY OF GRADUATE STUDIES (continued)

Audiology and Speech Sciences

New	AUDI 512 (1.5)	Sensory Physiology I: Hearing and Vision (cross-listed with PHYL 531)

Classics

M.A. Program in Classical Archaeology

New	CLST 501 (1.5)	Topography and Monuments of Athens
	CLST 502 (1.5)	Topography and Monuments of Rome
	CLST 503 (1.5)	Studies in Greek Architecture
	CLST 504 (1.5)	Studies in Roman Architecture
	CLST 505 (1.5)	Studies in Greek Town Planning
	CLST 506 (1.5)	Studies in Roman Town Planning
	CLST 507 (1.5)	Studies in Greek Painting
	CLST 508 (1.5)	Studies in Roman Painting and Mosaics
	CLST 509 (1.5)	Studies in Greek Sculpture
	CLST 510 (1.5)	Studies in Roman Sculpture
	CLST 511 (1.5)	Studies in Greek Regional Archaeology
	CLST 512 (1.5)	Studies in Roman Provincial Archaeology
	CLST 513 (1.5)	The Archaeology of Greek and Roman Technology
	CLST 514 (1.5)	Greek and Roman Minor Arts
	CLST 515 (1.5)	Directed Studies in Classical Archaeology

Information on Course Scheduling

(Before the entry for CLST 503, add the following note):

"Classical Studies 503 through 515 not offered each year. Consult the Department of Classics."

Program Statement

Replace Calendar statement on p. 139 (1986/87 Calendar) with the following:

"The thesis for the M.A. in Classics may be written in one of the following fields: Greek Language and Literature, Latin Language and Literature, Greek History, Roman History, Greek or Roman Archaeology, or Ancient Philosophy.

Major essays may be written in any of these fields by students following the M.A. program with Comprehensive Examinations. The Comprehensive Examinations may be weighted toward Greek or Latin Studies without concentrating exclusively on either. Satisfactory knowledge of both Latin and Greek is required; separate Masters of Arts degrees in Latin and Greek are not given.

The M.A. in Classical Archaeology is awarded for successful completion of 15 units of course work, a major essay, and comprehensive examinations. Brochures describing the M.A. and Ph.D. programs are available from the Department of Classics."

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APPENDIX 'B'

Course and curriculum proposals

FACULTY OF GRADUATE STUDIES (continued)

Health Care and Epidemiology

New	HCEP 511 (1.5)	Occupational Health II
	HCEP 512 (1.5)	Occupational Hygiene: Chemical and Biological Hazards
	HCEP 513 (1.5)	Occupational Hygiene: Physical Hazards

Changes
HCEP 510 - change title and units to: (1.5)
HCEP 501 - add prerequisite
HCEP 516 - add prerequisite
HCEP 536 - change title to: Health Services Research I: Evaluative Research, add prerequisites

Deletion HCEP 534

Music

New	MUSC 506 (1.0)	Readings in Orchestral Repertoire
	MUSC 606 (1.0)	Readings in Orchestral Repertoire
	MUSC 609 (1.5-3)	Advanced Orchestration and Arranging

Pathology

New PATH 648 (.5/3)c Directed Studies for Ph.D. Students
Change PATH 548 - change in title, units to: Directed Studies for M.Sc. Students (.5/3)c
Deletion PATH 519

Physiology

New	PHYL 531 (1.5)	Sensory Physiology I: Hearing and Vision
	PHYL 532 (1.5)	Sensory Physiology II: Vestibular System, Somatic Sensory System, Chemical Senses

Surgery

Change SURG 508, 509 - change in designation to: ORPA 508, 509

Deletions SURG 506, 507,

FACULTY OF PHARMACEUTICAL SCIENCES

Changes
PHAR 405 - change units to (1-3)c
PHAR 450 - change units to (1-3)c

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APPENDIX 'B'

Course and curriculum proposals (continued)

FACULTY OF SCIENCE

Biochemistry

Change BIOC 448 - change in description, units (to 1.5/3)c

Change in Program and Units

Option B: Genetic and Molecular Biological Aspects

Major

First and Second Year as in Option A.

Third Year		Fourth Year	
BIOC 301	1.5	BIOC 402	1.5
BIOC 303	3	BIOC 403	1.5
CHEM 313 and 305[2]	6	BIOC 410	1.5
BIOL 334	1.5	MICB 408	1.5
MICB 325	1.5	Arts Electives	6
Science Elective[1]	1.5	Electives[1]	3
	15		15

[1]Suggested Science electives (Major and Honours):

Second, Third or Fourth Year

BIOL 334	1.5	MATH/STAT 205	1.5
CPSC 114 and 116 or 118	1.5-3	ZOOL 203	1.5

Third or Fourth Year

BIOC 410[4]	1.5	CHEM 411	1.5	MEDG 420[3]	1.5
BIOC 448	1.5	CHEM 413	1	MEDG 421[3]	1.5
BIOC 449	1.5-3	CHEM 435	1	PHYL 301	3
BIOL 300	1.5	MICB 302	1.5	ZOOL 304	1.5
BIOL 301	1.5	MICB 324	1.5	ZOOL 405	1.5
BIOL 330	3	MICB 325[4]	1.5	ZOOL 407[3]	3
BOTA 435	3	MICB 402	1.5	ZOOL 408	1.5
BOTA 437[1]	1.5	MICB 408[4]	1.5	ZOOL 425[3]	1.5
CHEM 335	3	MICB 409[3]	1.5		
CHEM 405	1	MEDG 410[3]	1.5		

[2]In Option B, either Chemistry 313 or 305 can be postponed until the fourth year, and three units of Arts substituted in the Third Year.

[3]These electives are more relevant for Option B.

[4]Required courses for Option B; suggested electives for Option A.

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APPENDIX 'B'

Course and curriculum proposals

FACULTY OF SCIENCE (continued)

Biology

New BIOL 336 (1.5) Genetics II

Change BIOL 334 - change title, description

Chemistry

Change CHEM 407 - change title, description

Computer Science

Changes CPSC 213 - change title, description, prerequisite
CPSC 421 - change number, prerequisite (was 321)
CPSC 406 - change description, prerequisite
CPSC 414 - change title, description, prerequisite
CPSC 320 - change number (was 420)

Change in Programs - Change program to:

Major

Second Year		Third and Fourth Years	
CPSC 210, 213, 220	4.5	CPSC 310, 320	4.5
MATH 200, 221	3	Other Computer Science courses numbered 300 or above[3]	6
STAT 241[2]	1.5	Further Computer Science courses numbered 400 or above	6
Arts Elective	3	Mathematics courses numbered 300 or above[4]	4.5
Elective	3	Arts elective	3
	15	Electives[5]	6
			30

[2]Can be replaced by STAT 200 plus MATH/STAT 302.

[3]For Major students, it is recommended that at least two of the optional Computer Science courses be chosen from application areas (e.g. Computer Science 302, 402, 403, 404, 405, 406).

[4]Mathematics courses in analysis, applied mathematics, linear algebra, probability and differential equations and Statistics are recommended. Such courses include MATH 300, 303, 307, 315, 316, 340, 341, 342, 345, 400, 407 and 426, MATH/STAT 302 and STAT 304, 305, 306, 405 and 406.

[5]Appropriate courses from other fields of possible computer applications are suggested. In particular, attention is called to the following courses outside the Faculties of Arts and Science, for which credit will be granted: Commerce 356, 410, 411, 456, 457, 458; Electrical Engineering 256, 359, 360, 455 and 464.

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APPENDIX 'B'

Course and curriculum proposals

FACULTY OF SCIENCE

Computer Science - Change in Programs (continued)

Change program to:

Honours

Second Year		Third and Fourth Years	
CPSC 210, 213, 220	4.5	CPSC 302, 310, 320, 421	9
MATH 200, 220, 221	4.5	Other Computer Science courses numbered 300 or above[3]	10.5
STAT 241[2]	1.5	Mathematics courses numbered 300 or above[4]	9
Arts Elective	3	Arts Elective	3
Elective	3	Electives[5]	3
	16.5		34.5

[2]Can be replaced by STAT 200 plus MATH/STAT 302.

[3]Computer Science 448 is recommended.

[4]Mathematics courses in analysis, applied mathematics, linear algebra, probability, and differential equations and Statistics courses are recommended.

[5]Courses in logic, foundations of mathematics, and Electrical Engineering 256 are strongly recommended.

Major in Mathematical Computing

Change Program to:

Major in the Mathematical Sciences
(offered with Departments of Mathematics and Statistics)

First Year		Second Year	
CPSC 114, 116[1]	3	MATH 200, 220, 221	4.5
MATH 100, 101 (120, 121)	3	CPSC 210, 213, 220	4.5
PHYS 110, 115 or 120	3	MATH/STAT 302	1.5
CHEM 110 or 120	3	STAT 200	1.5
ENGL 100	3	Arts Elective	3
	15		15

Third and Fourth Years

MATH 303[2], 307, 315, 340	6
CPSC 302, 310, 320	7.5
STAT 305, 306, 404	4.5
Arts Elective	3
Electives[3]	9
	30.0

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APPENDIX 'B'

Course and curriculum proposals

FACULTY OF SCIENCE

Computer Science

Major in the Mathematical Sciences
(offered with Departments of Mathematics and Statistics) (continued)

[1]Computer Science 118 (1.5) and a 1.5 unit elective can be substituted by those eligible for Computer Science 118. Well qualified students are encouraged to take Computer Science 210. Special arrangements may be made for a student who did not take Computer Science 114 and 116 or 118 in First Year; such arrangements may limit choice of 400-level courses.

[2]Mathematics 418 may be substituted.

[3]These electives must include at least 6 units selected from the following courses: Computer Science 304, 313, 402, 403, 405, 406, 414, 417, 421; Mathematics 201, 300, 314, 316, 320-323, 341, 342, 400, 407, 413, 418; Statistics 304, 344, 346, 405, 406, 441, 445, 447.

Geography

Change Calendar statements:

Change statement on p. 216 (1986/87 calendar), col. a to:

in "**Faculty Requirements . . .** (b)"

Geography courses designated as carrying Science Credit are numbered 01-09 in the last digits. (Geography 449 also carries Science Credit, but only for B.Sc. Honours and Majors students in Geography.)

in "**Faculty Requirements . . .** (c)"

The Arts requirement can be met by Geography courses numbered 20 and above in the last two digits except those numbered 40-48 and 70-79 in the last two digits. Courses numbered 10-19, 40-48, 70-79 in the last two digits may be taken as free electives.

Change statement on p. 225, column a to:

Students entering the B.Sc. degree programs must consult the science advisor of the Department of Geography.

Changes *GEOG 205 - change hours

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APPENDIX 'B'

Course and curriculum proposals

FACULTY OF SCIENCE

Geography (continued)

Changes in Programs

Change programs to:

Major in Physical Geography

First Year		Second Year	
ENGL 100	3	GEOG 202 and 205	3
MATH 100, 101 (120,121)	3	GEOG 220 or 260	1.5
PHYS 110, 115 or 120	3	STAT 200, MATH 200	3
CHEM 110 or 120	3	CPSC 111	1.5
GEOG 101[1]	3	GEOP 221 or CHEM 208	3
	15	Arts Elective	3
			15

Honours - Geomorphology[1]

First Year		Second Year	
ENGL 100	3	GEOG 202 and 205	3
MATH 100, 101 (120,121)	3	GEOL 200, 201 and 256	4.5
PHYS 110, 115 or 120	3	GEOP 221	3
CHEM 110 or 120	3	MATH 200, 221	3
GEOG 101 or GEOL 105 or		CPSC 111	1.5
GEOP 120 and GEOL 125	3	STAT 200	1.5
	15		16.5

Honours - Climatology/Meteorology[1]

First Year		Second Year	
ENGL 100	3	GEOG 202 and 205	3
MATH 100, 101 (120,121)	3	MATH 200, 221	3
PHYS 110, 115 or 120	3	GEOP 221	3
CHEM 110 or 120	3	STAT 200, 205	3
GEOG 101[2]	3	CPSC 111	1.5
	15	Elective[3]	1.5
			15

Geological Sciences

Change GEOL 330, 449 - change description

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APPENDIX 'B'

Course and curriculum proposals

FACULTY OF SCIENCE (continued)

Geophysics and Astronomy

Change in Program

Honours Geophysics

Preamble

Geophysics is an interdisciplinary physical science concerned with the nature of the earth and its environment and as such seeks to apply the knowledge and techniques of physics, mathematics and chemistry to understand the structure and dynamical behaviour of the earth and its environment. The required sequence of matheamtics, physics and geophysics courses is designed to provide a basic structure on which to build a coherent honours program with science electives normally selected from geophysics, geology, astronomy, oceanography, mathematics, physics and chemistry.

First Year		Second Year	
GEOP 120 and GEOL 125[1]	3	CPSC 111	1.5
CHEM 120 (110)	3	MATH 200, 221, 315	4.5
MATH 100, 101 (120, 121)	3	PHYS 203, 209	3
PHYS 120 (115 or 110)	3	Electives[2]	9
ENGL 100	3		18
	15		

Third and Fourth Year

MATH 201	1.5
MATH 316 (PHYS 312)	1.5
PHYS 301, 309	3.5
GEOP 426 or GEPA 315	1.5-3
GEOP 320, 321, 322	4.5
GEOP 449 (or equivalent)	3
Electives[2]	17.5-16
	33

[1]Geology 105 may be substituted. Special arrangements may be made for students unable to complete this requirement in first year.

[2]The electives of years 2-4 must contain 6 units of Arts and 3 units of Geology. The remaining electives must form a coherent program to be approved by the departmental undergraduate committee. Sample programs in which the emphasis of the electives varies (e.g. geology, solid earth geophysics, astronomy, oceanography) are available from the department.

Delete Program - **Combined Honours Geophysics and Another Subject**

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APPENDIX 'B'

Course and curriculum proposals

FACULTY OF SCIENCE (continued)

Mathematics

Change in Calendar Statement

Add to statement on page 227, column 2:
OPTIONS AVAILABLE (for Third and Fourth Years): Any Mathematics Major program that does not follow one of the options below requires the written permission of the Head. **General Option: ...**

New MATH 226 (1.5) Advanced Calculus I
MATH 227 (1.5) Advanced Calculus II

Changes *MATH 357 - change title, description, prerequisite
MATH 342 - change description

Deletion MATH 225

It is understood and agreed that where reference is made to MATH 225, the new numbers MATH 226 and/or 227 (as appropriate) will be substituted. This understanding covers the descriptions of all courses, and of all programs leading to the Bachelor of Science degree and the notes thereunto.

Oceanography

Change in Programs

Combined Oceanography and Biology Honours

First Year		Second Year	
CHEM 110 or 120	3	BIOL 200, 201	3
ENGL 100	3	CHEM 230 or 203	3
MATH 100 and 101 (or 120 and 121)	3	Science electives[1,2]	9
PHYS 110 or 115 or 120	3	Arts elective	3
BIOL 101 or 102	3		18
	15		

Third and Fourth Years

OCGY 308	1.5	BIOL 300	1.5
OCGY 316 or 309	1.5	BIOL 334	1.5
OCGY 406	1.5	BIOL 321, 322	3
OCGY 408	1.5	Other Biology, Botany or Zoology courses numbered 300 or higher	4.5
OCGY 449	3	Arts Electives	3
		Science electives[2]	10.5
			33

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APPENDIX 'B'

Course and curriculum proposals

FACULTY OF SCIENCE

Oceanography

Change in Programs

Combined Oceanography and Biology Honours (continued)

[1]One of Geology 105, Geophysics 120 and Geology 125, Computer Science 114 and 116 (or 111 and 118), or Geography 101, and 6 additional units chosen from list under Biology program, Second Year, including 3 units of courses on organisms, e.g. Botany 209 and Zoology 205 or Microbiology 200.

[2]Mathematics 200 is strongly recommended in Second or Third Year; Science electives may include additional Oceanography courses in third and fourth years.

Combined Oceanography and Botany Honours

First Year		Second Year	
CHEM 110 or 120	3	BIOL 200, 201	3
ENGL 100	3	BOTA 209, 210	3
MATH 100 and 101		CHEM 230 or 203	3
(or 120 and 121)	3	ZOOL 205	1.5
PHYS 110 or 115 or 120	3	Science electives[1,2]	4.5
BIOL 101 or 102	3	Arts Electives	3
	15		18

Third and Fourth Years

OCGY 308	1.5	BIOL 300	1.5
OCGY 316 or 309	1.5	BIOL 321, 322	3
OCGY 406	1.5	BOTA 301	1.5
OCGY 408	1.5	BOTA 330	3
OCGY 449	3	BOTA 410	1.5
		BOTA 415	1.5
		Other Botany courses numbered 300 or higher	4.5
		Science electives[2,3]	4.5
		Arts electives	3
			33

[1]One of Geology 105, Geophysics 120 and Geology 125, Computer Science 114 and 116 (or 111 and 118), or Geography 101, and additional units for required total.

[2]Mathematics 200 is strongly recommended in Second or Third Year; Science electives may include additional Oceanography courses in third or fourth years.

[3]Biology 334 strongly recommended.

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APPENDIX 'B'

Course and curriculum proposals

FACULTY OF SCIENCE

Oceanography

Change in Programs (continued)

Combined Oceanography and Zoology Honours

First Year		Second Year	
CHEM 110 or 120	3	BIOL 200, 201	3
ENGL 100	3	ZOOL 203	1.5
MATH 100 and 101		ZOOL 205	1.5
(or 120 and 121)	3	CHEM 230	3
PHYS 110 or 115 or 120	3	Science electives[1,2]	6
BIOL 101 or 102	3	Arts Electives	3
	15		18

Third and Fourth Years

OCGY 308	1.5	BIOL 300	1.5
OCGY 316 or 309	1.5	ZOOL 303	3
OCGY 406	1.5	ZOOL 304	1.5
OCGY 408	1.5	BIOL 321, 322	3
OCGY 449	3	ZOOL 402	1.5
		Science electives[2,3]	10.5
		Arts electives	3
			33

[1]One of Geology 105, Geophysics 120 and Geology 125, Computer Science 114 and 116 (or 111 and 118), or Geography 101, and additional units for required total.

[2]Mathematics 200 is strongly recommended in Second or Third Year; Science electives may include additional Oceanography courses in third or fourth years.

[3]Zoology 340 and 440 available as electives; Biology 334 and Zoology 415 strongly recommended.

Combined Oceanography and Chemistry Honours

First Year		Second Year	
CHEM 110 or 120	3	CHEM 201, 202 (or 205)	3
ENGL 100	3	CHEM 203	3
MATH 100 and 101		MATH 200, 221	3
(or 120 and 121)	3	Science Electives[1]	6
PHYS 110 or 115 or 120	3	Arts Electives	3
BIOL 101 or 102	3		18
	15		

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APPENDIX 'B'

Course and curriculum proposals

FACULTY OF SCIENCE

Oceanography

Change in Programs

Combined Oceanography and Chemistry Honours (continued)

Third Year		Fourth Year	
CHEM 301	1.5	CHEM 310 (or 335)	3
CHEM 304 (or 305)	3	CHEM 421	1
CHEM 311	2	Chemistry elective	1.5
CHEM 330 (or 313)	3	OCGY 401[3] or 405	1.5
OCGY 308, 309	3	OCGY 407	1.5
Science electives[2,3,4]	4.5	OCGY 408	1.5
	17	Arts electives	3
		OCGY 449 or CHEM 449[4]	3
			16

[1]Must include one of Geology 105 (or Geophysics 120 and Geology 125), Biology 101 or 102, Computer Science 114 and 116 (or 111 and 118), Geography 101.

[2]Science electives may include additional Oceanography courses in third year.

[3]Mathematics 255 or 315 is prerequisite to Oceanography 401.

[4]If Chemistry 449 is taken, an additional 1.5 units of oceanography courses are required as part of the science electives.

Combined Oceanography and Physics Honours

First Year		Second Year	
CHEM 110 or 120	3	PHYS 200, 206	3
ENGL 100	3	PHYS 203, 209	3
MATH 100 and 101		MATH 200, 221, 315	4.5
(or 120 and 121)	3	Science Electives[2,3]	6
PHYS 110 or 115 or 120	3	Arts Electives	3
Electives[1]	3		16.5
	15		

Third Year		Fourth Year	
PHYS 301, 308	3	PHYS 401, 402	3
PHYS 303, 304	3	PHYS 406, 408	2
PHYS 306	1.5	OCGY 408	1.5
PHYS 307, 309	3	OCGY 409	1
MATH 201[3], 316	3	OCGY 449 or PHYS 449[5]	3
OCGY 308, 309	3	Arts electives	3
OCGY 401	1.5	Science electives[4]	3
	18		16.5

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APPENDIX 'B'

Course and curriculum proposals

FACULTY OF SCIENCE

Oceanography

Change in Programs

Combined Oceanography and Physics Honours (continued)

[1]Must include one of Geology 105 (or Geophysics 120 and Geology 125), Biology 101 or 102, Computer Science 114 and 116 (or 111 and 118), Geography 101.

[2]Recommended: more Computer Science, Mathematics, or Geography 212.

[3]Students are encouraged to take Mathematics 201 in the second year.

[4]Recommended from the following: Mathematics 300, Mathematics 345, Geography 311, Geography 312, Geophysics 322, Computer Science 302.

[5]If Physics 449 is taken, an additional 1.5 units of oceanography must be included in the science electives.

Physics

Change calendar statement

Change footnote, page 231, column 2 to:

[3]Chosen from the following Physics courses: 305, 400, 403, 406, 407, 408, 453, 454, or 477.

Changes PHYS 203 - change hours
PHYS 216 - change title
PHYS 408 - change description, prerequisite
PHYS 414 - change prerequisite
PHYS 421 - change description units, hours, prerequisite

Deletions PHYS 231, 239

Change Program

Combined Physics and Mathematics Honours[1]

Fourth Year

PHYS 307	1
PHYS 308, 402	3
PHYS 449	3
Additional Mathematics 6 units of approved 4th year courses	6
Electives	3
	16

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APPENDIX 'B'

Course and curriculum proposals

FACULTY OF SCIENCE (continued)

Statistics

New STAT 241 (1.5) Introductory Probability and Statistics

Zoology

Change ZOOL 429 - change description, hours