Wednesday, January 21, 1981.

The Fifth regular meeting of the Senate of The University of British Columbia for the Session 1980-81 was held on Wednesday, January 21, 1981, at 8.00 p.m. in the Board and Senate Room.

Present: President D. T. Kenny (Chairman), Chancellor J. V. Clyne, Dean G. S. Beagrie, Acting Dean T. R. Bentley, Mr. W. H. Birmingham, Mrs. M. F. Bishop, Dr. E. V. Bohn, Dr. C. B. Bourne, Dr. T. H. Brown, Rev. P. C. Burns, Dr. J. Dahlie, Mrs. L. Daniells, Dr. A. J. Elder, Mr. B. A. Elliott, Dr. R. G. Evans, Dean C. V. Finnegan, Mr. J. J. Fitzpatrick, Mr. H. J. Franklin, Mrs. E. D. Fulton, Dr. P. C. Gilmore, Dr. H. J. Greenwood, Miss A. M. S. Hall, Dr. T. D. Heaver, Mr. J. H. Holm, Dr. F. R. C. Johnstone, Dr. L. D. Jones, Dean W. D. Kitts, Mr. J. Kulich, Dean K. M. Lysyk, Dr. D. J. MacDougall, Miss M. C. MacPherson, Dr. A. J. McClean, Mr. W. A. McKerlich, Dr. J. H. McNeill, Miss A. J. Moonen, Mr. C. Niwinski, Dr. R. A. Nodwell, Dr. J. F. Richards, Dr. S. O. Russell, Dr. M. Shaw, Dr. J. G. Silver, Dr. C. E. Slonecker, Dr. R. H. T. Smith, Dr. G. J. Spitler, Ms. L. P. Stewart, Mr. B. Stuart-Stubbs, Mr. R. S. Szeliski, Dr. O. Sziklai, Dr. P. R. Tennant, Mr. G. A. Thom, Mr. L. Valg, Miss C. L. V. Warren, Dean W. A. Webber, Dean L. M. Wedepohl, Mr. R. S. Wilczek, Dean R. M. Will, Acting Dean D. LL. Williams, Dr. M. D. Willman, Mr. A. M. Wizinsky.

Observer: Mr. J. A. Banham

Regrets for their inability to attend were received from Mr. W. G. Burch, Ms. P. Gouldstone, Dr. W. M. Keenlyside, Dr. J. R. Ledsome, Dr. D. Lupini, Dean P. A. Lusztig, Ms. C. E. McAndrew, Mr. J. F. McWilliams, Rev. J. P. Martin, Dean B. E. Riedel, Dr. V. C. Runeckles, Mr. M. M. Ryan, Dr. G. G. E. Scudder, Dr. J. K. Stager, Mrs. J. C. Wallace.

Minutes of the previous meeting

Miss Moonen)
Miss Hall)

That the minutes of the Fourth regular meeting of Senate for the Session 1980-81, having been circulated, be taken as read and adopted.

Carried

Correspondence

The Chairman read to Senate a letter from Dr. Walter Barss, expressing thanks and appreciation for the memorial minute prepared by Senate in memory of his late father, Alden Forrest Barss.

Prizes, Scholarships and Bursaries

Dean Will)
Dean Finnegan) 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

Faculty of Education

The committee recommended approval of a proposal from the Faculty of Education to delete the calendar statement concerning late registration and transfers.

Dr. Smith)
Acting Dean Bentley) That the calendar statement concerning late registration and transfers be deleted, as recommended by the Faculty of Education.

Carried

Faculty of Dentistry

The committee recommended approval of a proposal from the Faculty of Dentistry to change the minimum average required for consideration of applicants to the Diploma in Dental Hygiene Program from 60% to 65%. It was stated in the proposal that for the past several years no applicant with an average below 70% had been accepted into the program; the requirement of a minimum 60% average was therefore misleading.

Dr. Smith)
Dean Beagrie) That the minimum average required for consideration of applicants to the Diploma in Dental Hygiene Program be changed from 60% to 65%.

Carried

School of Rehabilitation Medicine

The committee recommended approval of the following additions to Calendar statements on Admissions and Clinical Experience:

Reports of Committees of Senate

Admissions Committee

School of Rehabilitation Medicine (continued)

Admissions

"Primary consideration is given to well-qualified residents of British Columbia."

Clinical Experience

"This clinical field work may be out of the Vancouver area and students are responsible for any expenses involved."

Dr. Smith)
Dean Webber) That the proposed additions to Calendar statements on Admissions and Clinical Experience, recommended by the School of Rehabilitation Medicine, be approved.

Carried

School of Nursing

The committee recommended approval of the following changes to admission requirements and promotion regulations and the addition of criteria for honours graduation standing:

Under Admission Requirements:

First year of the 4-year B.S.N. program

Proposed Policy (a):

Applicants from secondary schools in British Columbia must have completed Chemistry 11, Algebra 11, Physics 11, and Biology 12. Students in British Columbia secondary schools who are planning to enter the School of Nursing are strongly urged to include Chemistry 12 in their secondary school program. Chemistry 12 will be required for admission by 1982-83.

General

Proposed Policy (a) to become (e):

The School reserves the right to readmit students and to stipulate conditions attached to readmission. Readmission to the School may necessitate repetition of nursing courses previously completed, if in the judgment of faculty, curriculum changes and/or length of interruption are sufficient to render the applicant inadequately prepared for the subsequent year. Therefore, students are strongly advised to notify the School of Nursing by February 1st of their intentions to enrol in the clinical nursing course in order that suitable time is available to complete the make-up work. Students may request the option of demonstrating competence in the areas of change as an alternative to completing a make-up experience.

Reports of Committees of Senate

Admissions Committee

School of Nursing

Proposed Policy (a) to become (e): (continued)

Where required preparation is unavailable due to cost or other factors, applicants will be refused admission beyond first year level, but may be considered for readmission to first year.

Where time normally permitted for completion of degree has lapsed, candidate will be required to provide evidence to justify special consideration.

Under the Program First Year

Proposed Policy:

Students are required to complete St. John's Ambulance Association Safety Oriented First Aid course prior to the completion of first year and the St. John's Ambulance Association Basic Life Support Cardio-Pulmonary Resuscitation course before entering second year.

Under Advancement and Supplemental Examinations

Proposed Policy:

On graduation, a student will be granted "Honours" standing if First Class standing (a minimum of 80%) is achieved in all four years with no failed courses.

Dr. Smith)
Dr. Willman) That the proposed changes to admission requirements and promotion regulations and the addition of criteria for honours graduation standing, recommended by the School of Nursing, be approved.

Carried

Curriculum Committee (see Appendix 'B')

Dr. Richards presented the report.

Faculties of Agricultural Sciences and Applied Science

The committee recommended approval of all items submitted by the Faculty of Agricultural Sciences, subject to the following:

(i) That Commerce 261 be added to the list of highly recommended Commerce courses in connection with the Management/Applied Economics programs, and note that Commerce 151 is a prerequisite to Commerce 271.

(ii) That the prerequisite statement for Animal Science 321 be changed to read: "Prerequisite: Animal Science 322".

Reports of Committees of Senate

Curriculum Committee

Faculties of Agricultural Sciences and Applied Science (continued)

(iii) That the description of Soil Science 311 be changed to read: "Microbial diversity; ecological significance of metabolic diversity and structural adaptations. Interactions among microbial populations; microbial interactions with plants, animals. The effects of microbial activities in nature."

The committee recommended approval of all items submitted by the Faculty of Applied Science, subject to the following:

(i) That the description of Applied Science 120 be changed to read: "Non-credit course designed to introduce students to Engineering. Information on the Faculty, the Profession and the particular skills and type of work conducted by practising engineers in the different disciplines."

(ii) That approval of Applied Science 380 be withheld pending consultation with the Department of Computer Science.

(iii) That approval of Bio-Resource Engineering 485 be withheld pending further consultation.

(iv) That approval of Electrical Engineering 468 be withheld pending consultation with the Department of Computer Science.

(v) That approval of proposed changes in the Honours Mathematics Option be withheld pending consultation with the Faculty of Science.

Dr. Richards)
Dean Kitts) That the proposals submitted by the Faculties of Agricultural Sciences and Applied Science be approved.

Carried

School of Architecture

The committee recommended approval of a proposal to change the Bachelor of Architecture degree program to a Master of Architecture degree program, together with proposed new courses and course changes, with the proviso that the details of the 1982-83 proposals could be modified, and subject to the following:

(i) Under Course of Study, item 3, change first sentence to read: "Students shall work out their courses of study after selecting courses on the following basis ..."

(ii) Under Standing and Promotion, change second sentence to read: "A student full or part-time must obtain ...", and delete last paragraph, i.e. "A student ... one year."

Reports of Committees of Senate

Curriculum Committee

School of Architecture (continued)

(iii) Under Architecture 590, last paragraph, delete: "Passed 60% to 64%."

Dr. Richards)
Dean Wedepohl) That the proposal of the School of Architecture to change the Bachelor of Architecture degree program to a Master of Architecture degree program, together with proposals for new courses and course changes, be approved with the proviso that the details of the 1982-83 proposals can be modified, and subject to the changes outlined under items (i) (ii) and (iii).

It was stated in the material circulated that the School of Architecture proposed to:

(a) Change the credential for the program, which is currently a Bachelor of Architecture degree, to a Master of Architecture degree which will then become the professional degree in Architecture.

(b) Make the necessary changes in the program to meet the criteria approved by Senate January 16, 1980 (page 7303 Minutes) for a "post-Baccalaureate in a discipline or field in which a baccalaureate is not offered".

(c) Make further changes and additions to the course offerings which will strengthen the degree program, provide greater flexibility and choice for the student, and increase the required credits for the degree from 55 to 59.

(d) Phase out the current post-professional Master of Architecture degree program when the above changes become effective, or alternatively, change the credential and continue and/or modify that program. A proposal in this regard will be brought to Senate in November, 1981.

(e) Develop a new 2-year post-professional Master's degree program.

Dr. Richards stated that the argument given in support of the proposal to change the credential from a Bachelor of Architecture to a Master of Architecture was that the program was post-baccalaureate and of an advanced nature with regard to the subject matter and further, that as far as the guidelines adopted by Senate for such programs were concerned it was perhaps less anomalous for the program to be carrying a Master's designation.

Reports of Committees of Senate

Curriculum Committee

School of Architecture (continued)

Dr. Richards also noted that students would be required to take a set of stipulated courses totalling essentially 47 of the 59 units required for the degree. He pointed out that within the 47 unit package there was some flexibility in that students would select courses from each of five groups outlined in the proposal. Students would also be required to complete 22½ units of design tutorials.

In discussing the proposals the committee had been unanimous in suggesting that there be clear guidelines with regard to what proportion of the program should be stipulated as required and had therefore recommended the modification outlined in item (i) that students shall work out their courses of study ..., rather than "Students should ..." as stated in the proposal.

Dr. Richards explained that if the proposal to change the Bachelor of Architecture to a Master of Architecture were approved, the existing Master of Architecture would have to be deleted and the School would then develop a new two-year post-professional Master's degree program which would obviously need a new credential. Although such a proposal had not yet been put through the School, the committee were concerned that when the program was developed there could be some problem in relation to course numbers included in the 1982/83 proposals which might be more suitably used for the Master's degree program to be developed. The committee had therefore included in the recommendation for approval the proviso that the details of the 1982/83 proposals can be modified.

With regard to the modification outlined in item (iii) it was explained that since there was a requirement in the program that students must maintain a second-class average it was not possible to graduate with a pass standing and therefore the words: "Passed 60% to 64%" should be deleted.

In reply to a query concerning the modification outlined in item (i), Dr. Richards confirmed that if the School of Architecture did not ratify the proposed change which would make the courses of study mandatory, approval of the proposal would be nullified and returned to the School for reconsideration.

After further discussion, the motion was put and carried.

Reports of Committees of Senate

Curriculum Committee (continued)

Faculty of Arts - Economics proposals

The committee recommended approval of new courses and course changes in Economics which had been withheld at the December meeting of Senate pending further consultation between the Department of Economics and the Faculty of Commerce and Business Administration.

Dr. Richards)
Dean Will)
That new courses and course change in Economics, recommended by the Faculty of Arts, be approved.

Carried

Faculty of Arts - Proposed Major in Music Theory

The committee recommended approval of a proposed Major in Music Theory subject to the inclusion of Physics 341 as a required course.

Dr. Richards)
Dean Will)
That the proposal of the Faculty of Arts to offer a Major in Music Theory be approved.

Objections were raised to the requirement that a second-class average be maintained in the Third and Fourth Years of the program since no other Major program in the Faculty of Arts had such a requirement.

In amendment:

Dr. Elder)
Mrs. Daniells)
That the requirement of a second-class average in each of the Third and Fourth years be deleted from the proposal.

It was argued that the program could not be compared to other degree programs in the Faculty since this was more of a professional degree program and was therefore comparable to many degrees outside the Faculty where such a provision does exist.

The amendment was lost.

The motion was put and carried.

Faculty of Arts - proposed Master in Journalism Program

Dr. Richards)
Dean Will)
That the proposal of the Faculty of Arts to offer a Master in Journalism program be approved.

Reports of Committees of Senate

Curriculum Committee

Faculty of Arts - proposed Master in Journalism Program (continued)

Dr. Richards explained that the proposal did not contain all the details of the program at this stage since the personnel required to develop the details could not be appointed until the Faculty received funding. It was intended that the program would fit into the category of post-baccalaureate professional Master's degrees, in accordance with criteria set out by Senate, and even though all the requirements had not been included in the proposal the committee understood that those requirements would be met.

After a brief discussion the motion was put and carried.

Faculties of Commerce and Business Administration, Dentistry, Education and Forestry

The committee recommended approval of a new course and course changes submitted by the Faculty of Commerce and Business Administration, subject to the following:

(i) Commerce 456 - delete from the prerequisite statement the words "for undergraduates" and "for graduate students".

(ii) Commerce 320 - change the description to read: "An analysis of organizational structures and intra-organizational processes; effects of organizational factors on individual behaviour."

The committee recommended approval of a course change submitted by the Faculty of Dentistry; curriculum changes and a proposed English Composition Requirement submitted by the Faculty of Education, and course changes submitted by the Faculty of Forestry. Approval of a proposed new course, Forestry 374, was withheld pending the development of other new courses and a new program in timber engineering.

Dr. Richards)
Dr. Sziklai) That the proposals of the Faculties of Commerce and Business Administration, Dentistry, Education and Forestry, be approved.

Carried

Faculty of Graduate Studies - new courses

The committee recommended approval of proposed new courses with the exception of Civil Engineering 517 and 518 which were being withheld pending the development of other new courses and a new program in timber engineering.

Reports of Committees of Senate

Curriculum Committee

Faculty of Graduate Studies - new courses (continued)

Dr. Richards)
Acting Dean Williams) That new courses recommended by the Faculty of Graduate Studies, with the exception of Civil Engineering 517 and 518, be approved.

Carried

The committee recommended that Psychology 550, 551, 552, 553, 554 and 555 not be approved on the grounds that these courses failed to satisfy three of the criteria established by Senate for statistics courses, namely:

No introductory or basic statistics courses should normally be offered above the 300 level.

All new statistics course proposals should require justification on the grounds that the different or specialized statistical techniques which must be emphasized are not currently available in an existing course format.

All introductory statistics courses (existing or proposed) which are offered in disciplinary contexts should have stated prerequisites within the discipline.

Dr. Richards)
Mr. Niwinski) That Psychology 550, 551, 552, 553, 554 and 555, not be approved.

Carried

Faculty of Graduate Studies - course changes

The committee recommended approval of proposed course changes with the exception of the following:

Civil Engineering 516 - approval of this course is being withheld pending the development of other new courses and a new program in timber engineering.

Psychology 545 - the committee recommends that this course not be deleted since the new courses which were to replace 545 have not been approved.

Dr. Richards)
Acting Dean Williams) That the course changes recommended by the Faculty of Graduate Studies, with the exception of changes to Civil Engineering 516 and Psychology 545, be approved.

Carried

Reports of Committees of Senate

Curriculum Committee (continued)

Faculty of Graduate Studies - proposed Ed.D. Program in Curriculum Studies

Dr. Richards)
Acting Dean Bentley) That the proposal of the Faculty of Graduate Studies to offer an Ed.D. Program in Curriculum Studies be approved.

Carried

Faculty of Graduate Studies - proposed Ph.D. Program in Human Learning, Development and Instruction

Dr. Richards)
Acting Dean Bentley) That the proposal of the Faculty of Graduate Studies to offer a Ph.D. Program in Human Learning, Development and Instruction, be approved.

It was agreed, as recommended by the committee, that the words "is deemed desirable" be added to item (c) under "Admissions" which would then read:

(c) Teacher education and/or adequate experience as a teacher or instructor in an educationally relevant position is deemed desirable ..."

It was noted that this would be the first Ph.D. program in Education.

The motion was put and carried.

Faculty of Medicine, School of Nursing, Faculty of Pharmaceutical Sciences, School of Physical Education and Recreation, School of Rehabilitation Medicine

The committee recommended approval of a new course and course changes submitted by the Faculty of Medicine; course changes and an English Composition requirement submitted by the School of Nursing; course changes submitted by the Faculty of Pharmaceutical Sciences; new courses, changes to calendar statements, and proposed changes and new courses in connection with the B.R.E. program submitted by the School of Physical Education and Recreation; and new courses and course deletions submitted by the School of Rehabilitation Medicine. The following minor changes to the proposals from the School of Nursing and the School of Physical Education and Recreation were noted:

Nursing 301 - change description to read: "Study and application of concepts, and skills and processes basic to the practice of nursing. Emphasis is on the care of families with newborn infants and young children."

Physical Education 382 - change title to "Meaning and Values in Sport" and change the description to read: "An analysis of the experience of sports activities."

Reports of Committees of Senate

Curriculum Committee

Faculty of Medicine, School of Nursing, Faculty of Pharmaceutical Sciences, School of Physical Education and Recreation, School of Rehabilitation Medicine (continued)

B.R.E. program - change the second sentence in the first paragraph of the Calendar entry to read: "Completion of this program does not satisfy the requirements for admission to the post-graduate one year program (Secondary) of the Faculty of Education."

Change note after * to read: *Psychology 206 may be substituted for Psychology 100 in the Second Year.

Under heading Therapeutic Recreation change course numbers of Recreation 465, 466 and 467 to 365, 366 and 367, respectively.

Recreation 301 - add the word "and" before Sociology 200 in the prerequisite statement.

Recreation 367 - change description to read: "The philosophies, principles and practices associated with the provision of leisure services for the aged."

Dr. Richards)
Dean Webber) That the proposals of the Faculty of Medicine, School of Nursing, Faculty of Pharmaceutical Sciences, School of Physical Education and Recreation, and the School of Rehabilitation Medicine, be approved.

Carried

Faculty of Science

The committee recommended approval of new courses, course and program changes submitted by the Faculty of Science, subject to the following:

That the following new non-credit course be introduced instead of moving the field school from Geology 305 to 435:

Geology 235 (0) Field Techniques Introduction to the techniques of geological field mapping and use of related instruments. Three days during the spring term, scheduled on fair-weather weekends. Prerequisite for Geology 435 Field Geology. (0-0-0; 3 days)

Geology 435, change to read: "Add prerequisite Geology 235".

Geophysics 210, include in the description after the words "A study ...", "... including theories of their origin and evolution ...".

Oceanography 316, change prerequisite statement to read: "Co-requisites Biology 300, 321, 322 or permission of Head of Department".

Oceanography 406, delete from description the words: "A practical course in ...".

Oceanography 412, delete from description the sentence: "Current work in the field will be stressed."

Reports of Committees of Senate

Curriculum Committee

Faculty of Science (continued)

Physics 305, change description to read: "An introduction for physicists (assumed to have no background in biology) to the basics of molecular biology, followed by selected examples where insights from physics and mathematics have helped solve important biological problems. Intended for students in a Physics Honours program. Not for credit for students in the life sciences. (3-0-0; 0-0-0)".

Zoology 316, this is the same course as Oceanography 316. The prerequisite statement should therefore be changed to read as that for Oceanography 316 outlined above.

Dr. Richards)
Dean Finnegan) That the proposals of the Faculty of Science be approved.

Carried

Introductory courses in probability and statistics

In accordance with recommendation 7 of the report of the ad hoc Committee on Statistics, a list of introductory courses in probability and statistics for inclusion in the Calendar, together with a qualifying statement, had been provided by the Subcommittee on Statistics.

Dr. Richards)
Dr. Nodwell) That the list of introductory courses in probability and statistics, together with the qualifying statement, be approved.

Carried

Nominating Committee

Ad hoc Committee on Replacement of Degree Diplomas

Dr. Stager presented the report. It was explained in the material circulated that it had been the practice to replace a degree diploma in cases where the diploma had been lost or destroyed. In such cases the diploma had been replaced using the same name of the graduate that appeared on the original diploma. All other requests for a replacement diploma with a change of name have been denied on the basis that the name on the diploma should remain the same as the name approved by Senate.

Reports of Committees of Senate

Nominating Committee

Ad hoc Committee on Replacement of Degree Diplomas (continued)

It was noted, however, that in recent years there had been an increasing number of graduates requesting that a diploma be re-issued in a name other than that approved by Senate, for reasons such as marriage, divorce or other change of name. It was felt that since all matters relating to the awarding of degrees are matters governed by Senate, there was a need to have a definite Senate policy on this matter. The Nominating Committee had therefore been requested to recommend membership for an ad hoc committee to recommend to Senate policy concerning the changing of names on degree diplomas.

The committee recommended the following membership:

Dean C. V. Finnegan
Dr. J. R. Ledsome
Ms. L. P. Stewart
Mrs. J. C. Wallace

Dr. Richards)
Miss Warren) That the recommendations of the Nominating Committee be approved.

Carried

Faculty of Commerce and Business Administration

Regulation re credit for courses passed in a failed year

Dr. Heaver)
Dr. Jones) That the proposal of the Faculty of Commerce and Business Administration that a student who is readmitted after a failed year will receive credit for those courses in the failed year in which a grade of at least 65% was obtained, be approved.

It was explained in the material circulated that the proposal would bring the regulations of the Faculty of Commerce and Business Administration regarding "Failed Year" more in line with the general University practice.

The motion was put and carried.

Faculty of Education

Establishment of a Department of Administrative, Adult and Higher Education

Acting Dean Bentley)
Dr. Dahlie) That the proposal of the Faculty of Education to establish a Department of Administrative, Adult and Higher Education, be approved.

Faculty of Education

Establishment of a Department of Administrative, Adult and Higher Education (continued)

It was noted that Senate, at its meeting of April 23, 1980, had approved the formation of seven departments in the Faculty of Education. The recommendation had included a temporary measure whereby a Division of Educational Administration, Adult Education and Higher Education was formed, pending a decision by the members of the Division as to the structure best suited to their needs. The members had considered the matter at length and recommended approval of the proposal to establish as a formal department the Department of Administrative, Adult and Higher Education.

The motion was put and carried.

Faculty of Medicine

Proposal to establish a Chair in the Department of Family Practice

Dean Webber)
Dr. Evans)

That the proposal of the Faculty of Medicine to establish the Mount Pleasant Legion Professorship of Community Geriatrics be approved.

It was stated that the Mount Pleasant Branch of the Canadian Legion were to provide operating and endowment funding for a program in community geriatrics in the Department of Family Practice. The Faculty of Medicine recommended that part of the funding be used to establish the proposed Chair.

The motion was put and carried.

The President's Report 1979-80

The President's Report for 1979-80 had been circulated for information.

Other business

Election of Faculty members to Senate

Queries were raised concerning the eligibility of Faculty members to run for election while on leave-of-absence or on disability.

After some discussion it was suggested that an ad hoc committee be established to look into those matters and similar such circumstances.

Other business

Election of Faculty members to Senate (continued)

Dr. Elder)
Chancellor Clyne) That an ad hoc committee be established to investigate and make recommendations concerning the eligibility of members of Faculty, as defined in the University Act, to stand for election while on leave-of-absence, disability and similar such circumstances.

It was stressed that this would not affect the elections currently underway.

The motion was put and carried.

The meeting adjourned at 10.10 p.m.

The next regular meeting of Senate will be held on Wednesday, February 18, 1981.

Secretary

Confirmed,

Chairman

APPENDIX 'A'

New Awards recommended to Senate

Nancy Allan Memorial Scholarship - An annual scholarship in the amount of $1,000 has been established by family and friends of the late Nancy Allan in recognition of her outstanding qualities as person, performer, and leader of youth. A gifted singer from her early years, Nancy Allan became well known in Vancouver for her talent in oratoria, light opera, and spirited interpretations of the songs of her native Scotland. From 1961 to 1978, Mrs. Allan led the Dunbar Heights Girls Ensemble. Believing that teenagers must be motivated and led rather than directed, she used her magic blend of vibrant personality, musicianship, and stagecraft to nurture both musical apprecation and personal development. The scholarship will be awarded to the student entering penultimate or final year Music Education who best combines musicianship with an ability to communicate the spirit of music to others. The award will be made on the recommendation of the faculty.

Ando Laboratories Prize - A prize of $500 will be awarded to the graduating student in the Faculty of Dentistry who, in the opinion of the Faculty, has demonstrated the most promise in patient care in the field of restorative dentistry.

British Columbia Home Economics Association Scholarship II - A scholarship in the amount of $250, donated by the British Columbia Home Economics Association will be awarded to a student entering the fourth year of the Bachelor of Home Economics program. The award will be made to a student who has high academic standing in any one of the specialty areas. The award will be made on the recommendation of the School of Home Economics.

Canadian Institute of Mining and Metallurgy, Vancouver Branch, District 6, Memorial Scholarship - An annual memorial scholarship in the amount of $1,000 on behalf of distinguished C.I.M. members (deceased) from the Vancouver B. C. Branch, District 6, of the Canadian Institute of Mining and Metallurgy is awarded to a student entering the second year program of the Department of Mining and Mineral Process Engineering. The recipient will be selected by the department on the basis of high academic standing and interest in the mining industry.

Margaret Croucher Memorial Award - An award in the amount of approximately $150 has been established by friends, family and colleagues of Margaret Croucher, to recognize her personal qualities and her pioneering contribution to the field of Rehabilitation in Home Care Services. The award will be made at the beginning of the spring term, to a final year student who has shown a keen interest in all aspects of Rehabilitation Medicine. In making the award, preference will be given to a mature student deserving of financial assistance.

Stephen Dawson Memorial Scholarship - A scholarship in the amount of $300 has been provided by his parents, in memory of Stephen James Dawson, B.A.Sc., 1967, for academic endeavour such as was displayed by Stephen. In the face of much adversity, he achieved high standards and his degree in Chemical Engineering. The award will be made annually to a student entering the second year in this course.

Ephram Arthur Day Bursary - A bursary in the amount of $500 per annum has been made available by the Central Okanagan Foundation. The award will be made to a student who normally resides in the Central Okanagan (Peachland to Oyama inclusive) and who, on the basis of need and academic standing, requires financial assistance in the pursuit of a Bachelor's degree in Agriculture or Forestry.

APPENDIX 'A'

New Awards recommended to Senate (continued)

Department of Music, Keyboard Division, Scholarship - A scholarship in the amount of approximately $200 will be awarded annually to the most outstanding keyboard performance major entering the Department of Music. The award will be made on the recommendation of the Department.

Department of Music Entrance Scholarships - Two scholarships in the amount of approximately $300 and $150 will be awarded annually to students entering the Department of Music. These awards will be made on the recommendation of the Department.

Ian and Jonathan Gritten Memorial Bursary - A bursary has been established in memory of Ian Earle Gritten, a student in the Faculty of Law at The University of British Columbia, and his younger brother, Jonathan Richard Gritten, a student in Penticton, B. C., who both died tragically in October 1980. Through this bursary their family and friends pay tribute to the exceptional quality of their lives. The award will be made annually to a law student who entered the Faculty of Law after only three years of undergraduate study. Preference will be given to a student who attended high school in British Columbia outside the Lower Mainland.

Frank Ramsey Medical Bursaries - Bursaries to a total of approximately $4,000 per annum have been made available by Frank Ramsey, to assist needy students in the Faculty of Medicine.

Svadhyaya Sanskrit Prize - A prize in the amount of approximately $40 has been made available by a grateful son in the memory of his father. The award will be made on the recommendation of the Department of Asian Studies to a student demonstrating exceptional promise in advanced Sanskrit. It may be withheld if no suitable candidate is available.

University Women's Club of Vancouver, Margaret Redmond Scholarship - The University Women's Club of Vancouver offers a scholarship to a mature woman student, in either a full-time or part-time course proceeding to a degree, in any year up to and including the Master's level.

Leslie F. S. Upton Memorial Scholarship - An annual scholarship of $200 will be awarded as a memorial to Professor Leslie F. S. Upton. He left a lasting impression about Canada's past on hundreds of undergraduates and contributed significantly to the written history of North America while a member of the History Department from 1964 to 1980. The award was made possible by contributions from Professor Upton's colleagues and friends at U.B.C. and several other universities, former students and family. It will be made to a history majors student who has written the best essay in competitive examination organized and adjudicated by the History Department before December 15. In addition to the scholarship, the winner will receive a copy of a book written by Professor Upton.

APPENDIX 'B'

Course and curriculum proposals

FACULTY OF AGRICULTURAL SCIENCES

Agricultural Economics

Program change:

Proposed Calendar Entry

The Department offers opportunities for study leading to the Bachelor's and Master's degrees. Students interested in the Ph.D. may register in the Faculty of Graduate Studies through the Department of Economics where their program of study and thesis will be supervised jointly by members of the Department of Economics and the Department of Agricultural Economics.

The graduate in Agricultural Economics is expected to obtain a broad perspective in technical knowledge to facilitate an understanding of agricultural opportunities. More specifically, all graduates should be familiar with microeconomic and macroeconomic theory, production aspects of primary agriculture, and be capable of using quantitative tools of analysis.

Three areas of specialization are available at the Bachelor's level: (1) management, (2) applied economics, and (3) rangeland resources. Students interested in practical agriculture and careers in farm management, agribusiness, and aquacultural management can take courses emphasizing management. Students interested in more aggregate (global) aspects of agriculture as well as more research-oriented students can take courses emphasizing applied economics. Students can also specialize in interdisciplinary studies in rangeland resource management.

Requirements for the B.Sc. (Agr.) Degree:

First Year

Economics 100	3
Agricultural Sciences 100	0
Agricultural Sciences 110	1½
Biology 101 or 102	3
English 100	3
Mathematics 100 and 101	3
Chemistry 103 or 110 or 120	3
	16½

Management/Applied Economics

Second and Third Years

Agricultural Sciences Electives (Note 1)	4½
Agricultural Economics Core (Note 2)	4½
Unrestricted Electives	3
Breadth Electives (Note 5)	3
Agricultural Economics 258	1½
Agricultural Economics 260 (Note 6)	1½
Economics 301 & 302 (Note 7)	3
Economics 325 & 326 (Note 8)	3
Agricultural Economics 261 (Note 9)	1½
Quantitative Methods Elective (Note 10)	1½
Agricultural Sciences 300	1

APPENDIX 'B'

FACULTY OF AGRICULTURAL SCIENCES

Agricultural Economics

Program change: (continued)

Management	
Management Electives (Note 3)	4½
Economics Electives (Note 4)	1½
Applied Economics	
Economics Electives (Note 4)	4½
Management Electives (Note 3)	1½
	34
Fourth Year	
Agricultural Economics Core	3
Unrestricted Electives	4½
Agricultural Sciences 410	1½
Agricultural Economics 423	1
Agricultural Economics 425	3
Management	
Management Electives	4½
Applied Economics	
Economics Electives	4½
	17½

Rangeland Resources

Second and Third Years

Physics 110 or 115 or 120	3
Animal Science 258	1½
Soil Science 200	1½
Plant Science 259	1½
Biology 321	1½
Forestry 125	1½
Agricultural Economics 301 & 374	3
Plant Science 304 & 320	3
Unrestricted Electives	1½
Breadth Electives (Note 5)	3
Agricultural Economics 258	1½
Agricultural Economics 260 (Note 6)	1½
Economics 301 & 302 (Note 7)	3
Economics 325 & 326 (Note 8)	3
Agricultural Economics 261 (Note 9)	1½
Quantitative Methods Elective (Note 10)	1½
Agricultural Sciences 300	1
	34

APPENDIX 'B'

FACULTY OF AGRICULTURAL SCIENCES

Agricultural Economics

Program change: (continued)

Rangeland Resources

Fourth Year

Economics 370 & 371 or 470	3
Animal Science 421	1½
Plant Science 404 & 405	3
Unrestricted Electives	4½
Agricultural Sciences 410	1½
Agricultural Sciences 423	1
Agricultural Sciences 425	3
	17½

Notes:

1. This requirement may be met by a choice of courses offered within the Faculty but outside the Department in which the student is specializing. The choice normally will be made from the following list: Animal Science 258 (1½), Food Science 258 (1½), Food Science 259 (1½), Plant Science 259 (1½), Poultry Science 258 (1½), Soil Science 200 (1½), Soil Science 214 (1½), and Plant Science 310 (1½).
2. To be chosen from Agricultural Economics 301, 306, 340, 374, 400, 407, and 420. (Agricultural Economics 301 is highly recommended for both Management and Economics options, Agricultural Economics 407 is highly recommended for Economics option).
3. Eligible courses are: Agricultural Economics 301, 302, 310, 411, 415, 416; courses from Faculty of Commerce (Commerce 151, 261, 271, and 331 highly recommended, N.B. Commerce 151 is a prerequisite to Commerce 271); courses from Faculty of Agricultural Sciences.
4. Any 300 or 400 level course in Agricultural Economics or Economics eligible.
5. Each student's total program must include a minimum of 3 units of breadth electives chosen from the humanities, fine arts or social sciences (Agricultural Economics majors also may choose courses in the natural sciences) and approved by the Department Head.
6. Economics 320 may be substituted with Department Head approval.
7. Economics 306 and 307 may be substituted with Department Head approval.
8. Mathematics 305 and 306, Economics 327 and 329, Plant Science 321 and 322, or Commerce 211 and 212, may be substituted with Department Head approval.
9. Forestry 331, Mathematics 340 or Commerce 410 may be substituted with Department Head approval.
10. To be chosen from the following: Economics 325, Economics 326, Economics 327, Economics 329, Mathematics 305, Mathematics 306, Mathematics 340, Plant Science 321, Plant Science 322, Commerce 211, Commerce 212, Commerce 291, Commerce 310, Commerce 410, Forestry 331, Computer Science 101, Computer Science 115.

APPENDIX 'B'

FACULTY OF AGRICULTURAL SCIENCES

Agricultural Economics

Program change: (continued)

Courses offered by other faculties:

Apart from courses in other faculties listed as requirements for the options in Agricultural Economics, there are many others which could be chosen as electives.

The following departments offer courses directly complementary to programs of study in Agricultural Economics: Anthropology, Commerce, Computer Science, Economics, Education, Forestry, Geography, Mathematics, Political Science, Psychology, Sociology.

Animal Science

Change ANSC 321 - change in description

Food Science

Program change

Proposed Calendar Entry

Food Science is a discipline which emcompasses Food Chemistry, Physical Bromatology, Food Process Science and Structural and Environmental Bromatology, with respect to the manufacture, preservation, quality control and development of food products.

Students at the undergraduate level can pursue a general program or an area(s) of special interest through choice of elective courses. The minimum requirement of the Bachelor's degree program in the Department of Food Science is outlined below. Students wishing to specialize or concentrate on certain areas should consult the Head of the Department.

The Department offers M.Sc. and Ph.D. programs in the fields of Food Chemistry, Food Microbiology, Structural Bromatology, Environmental Bromatology and Food Process Science.

Requirements for the B.Sc. (Agr.) degree

First Year

Agricultural Sciences 100	0
Agricultural Sciences 110	1½
Biology 101or 102	3
Chemistry 103 (110 or 120)	3
Mathematics 100 and 101	3
English 100	3
Economics 100	3
	16½

APPENDIX 'B'

FACULTY OF AGRICULTURAL SCIENCES

Food Science

Program change

Requirements for the B.Sc. (Agr.) degree (continued)

Second Year

Agricultural Sciences Electives	4½
Chemistry 230	3
Food Science 259	1½
Physics 110 (115 or 120)	3
Microbiology 200	3
Program Electives (Note 1)	1½
	16½

Third and Fourth Years

Agricultural Sciences 300	1
Agricultural Sciences 410	1½
Agricultural Mechanics 300	1½
Food Science 301	1½
Food Science 302	1½
Food Science 303	1½
Food Science 308	1½
Food Science 309	1½
Food Science 423	1
Food Science 425	3
Food Science Electives (Note 2)	4½
Microbiology 307	1½
Plant Science 321 or equivalent	1½
Nutrition Elective (Note 3)	1½
Breadth Elective (Note 4)	3
Program Electives (Note 1)	3
Unrestricted Electives (Note 5)	4½
	35

Notes:

1. Program electives can be chosen from various Departments, Schools and Faculties including: Agricultural Economics, Agricultural Mechanics, Animal Science, Applied Science, Biochemistry, Bio-Resource Engineering, Botany, Chemistry, Commerce, Computer Science, Economics, English, Forestry, Home Economics, Mathematics, Microbiology, Plant Science, Poultry Science, Psychology and Zoology. A list of these is available from the Head of the Department or from a Faculty Advisor. A course in biochemistry taken early in the program is highly recommended.

2. Food Science electives are to be selected such that at least one course is taken from each of:

   (a) Food Science 401, 410, 412, 414 or
   (b) Food Science 402, 416, 418.

APPENDIX 'B'

FACULTY OF AGRICULTURAL SCIENCES

Food Science

Program change

Notes: (continued)

3. The nutrition elective is to be selected from Home Economics 203 or 303, Poultry Science 322.
4. Each student's program must contain a minimum of 3 units of electives chosen from the humanities, performing arts or social sciences and approved by the Head of the Department.
5. The unrestricted electives may be chosen so as to provide additional breadth of knowledge in agricultural sciences or other subjects, to provide additional depth in the major field or to develop a secondary or minor interest area. The choices are to be made in consultation with the Head of the Department.

Plant Science

New courses	PLNT 315 (1½) Herbaceous Plants in the Landscape
Changes	PLNT 305, 316, 416 - change in title and description PLNT 413 - change in description and prerequisite

Program change

Horticulture Option:

Required: Plant Science 316 (1½), 411 (1½), 414 (1½), 417 (1½), 418 (1½), 433 (1½), Soil Science 315 (1½). Recommended electives: Agricultural Economics 416 (1½), Plant Science 315 (1½), 322 (1½), 326 (1½), 413 (1½), 426 (1½).

Ornamental Horticulture Option:

Required: Plant Science 315 (1½), 316 (1½), 414 (1½), 418 (1½), 433 (1½), Soil Science 315 (1½), Landscape Architecture 100 (3). Recommended electives: Agricultural Economics 416 (1½), Plant Science 322 (1½), 413 (1½), 415 (1½), 416 (1½), 426 (1½).

Soil Science

New courses	SOIL 302 (1½) Air Photo and Soil Interpretation for Forestry SOIL 442 (1½) Photo Interpretation Forest Lands SOIL 443 (1½) Remote Sensing in Forestry and Agriculture
Change	SOIL 311 - change in description

FACULTY OF APPLIED SCIENCE

New course	APSC 120 (0) Introduction to Engineering
Change	Policy on courses passed now reads: "In a failed year a student shall be granted credit for all passed courses."

APPENDIX 'B'

FACULTY OF APPLIED SCIENCE (continued)

Bio-Resource Engineering

New courses — BIOE 356 (1½) Principles and Engineering Application of Plant Physiology

BIOE 357 (1½) Principle and Engineering Applications of Animal Physiology

Changes — BIOE 385 (1) - change in number, units and hours, now: BIOE 285 (1½)

Add to core program SOIL 413

Program change

Third Year Program - Reduction in number of Elective units from 6 to 4½.

Calendar description to read: "Plus 4½ units Electives Selected ..."

Chemistry 253 (1) Organic Chemistry - Delete from core program.

Microbiology 418 (1½) Industrial Microbiology - Delete from core program.

Chemical Engineering

Change — CHML 470 (2) Pulp and Paper Technology - split into two courses, now:
CHML 470 (1) Chemical Pulping Technology, and
CHML 471 (1) Mechanical Pulping and Papermaking Technology

Metallurgical Engineering

Program change — Delete APSC 251 from Second Year
Add ELEC 264 to Second Year

Changes — METL 482 - change of schedule from second to first term
METL 484 - change in title, description, units (now 1 unit), hours and prerequisites

SCHOOL OF ARCHITECTURE

Change Bachelor of Architecture Degree Program to a Master of Architecture Degree Program

Admission

The Admissions Committee of the School of Architecture requires that students entering the program should demonstrate interest and potential in the broad field of the creative arts and architecture. Prior instruction and experience in the arts,

APPENDIX 'B'

SCHOOL OF ARCHITECTURE

Change Bachelor of Architecture Degree Program to a Master of Architecture Degree Program

Admission (continued)

crafts, or other design oriented activities, with emphasis on visual communication in various media, is extremely valuable. Similarly the selection of university courses covering a broad range of studies in the Arts, Humanities and Social Sciences on the one hand and the Physical and Applied Sciences on the other, offers a desirable breadth and mix of academic experience. Irrespective of specific degree requirements within various faculties or universities, the School of Architecture considers it desirable that entering students possess both Mathematics (including introductory calculus) and English (literature and composition) at the level of first year university.

For students seeking general information and guidance in preparation for entry to the School a paper entitled "Information for Prospective Students" is available on request at the School office. Prospective students are encouraged to establish contact with the School during their pre-architecture years by arranging for interviews and counselling with faculty, by attendance at public presentations of student work, and by informal contact with students and recent graduates and participation in student-sponsored activities.

The academic requirements for admission to the School of Architecture are:

1. Completion of a baccalaureate degree at The University of British Columbia, or at another recognized college or university, following a broadly based program of studies in:

   (a) the Arts, Social Sciences, Humanities, and/or,
   (b) the Physical and Applied Sciences.

   An average of not less than 65% or its equivalent is required in the courses comprising the final two years of study leading to the degree.

2. Successful completion of at least three years of an approved program of study with second class standing (65%) at a School of Architecture in Canada or at a School of Architecture listed in one of the following accreditation lists of recent date:

   (a) Schools of Architecture recognized by the Commonwealth Association of Architects (C.A.A.).

   (b) Schools of Architecture recognized by the Royal Institute of British Architects (R.I.B.A.) in the United Kingdom and in European Common Market countries.

   (c) Schools of Architecture listed by the National Architecture Accrediting Board (N.A.A.B.) in the United States.

OR

3. Completion of an approved diploma course in Building Technology of at least two years duration at the post secondary level, plus not less than three years of study at the college or university level as outlined in (1.) above.

APPENDIX 'B'

SCHOOL OF ARCHITECTURE

Admission (continued)

Applicants not meeting the specific academic requirements given in (1.), (2.) or (3.) above but who possess extensive experience in design-related activities, or who consider that their background is of equal merit, may apply to the Registrar for a review of their academic standing so that their application may be considered by the Admissions Committee of the School. Applicants in this category must specify this intention in their application and must demonstrate that their experience and accomplishments relevant to architecture will compensate for any deficiencies in their academic record.

Master's Degree Program (M.Arch.)

Instruction in the School of Architecture is offered through:

(a) an orientation WORKSHOP of two weeks duration given in mid-August to all incoming students.

(b) regular 1½ credit courses of one term duration in a variety of formats including lectures, seminars, lecture-laboratory or problem sessions, directed study, or workshop.

(c) 1 credit courses of one-week's duration, given twice each academic year. (also open to unclassified students)

(d) DESIGN TUTORIALS of one-term duration in which building projects are designed under the direction of full-time and part-time architects on the faculty and visitors.

(e) Summer Design Tutorial of six weeks duration, 8 hours/day, individualized design instruction for makeup or enrichment given during May and June.

(f) A STUDY ABROAD program, usually offered every second year in the spring term, where faculty and selected students from the School travel to another country and spend one term engaged on a design tutorial based on a local situation there, and undertake directed studies related to that particular architectural context.

The substantive knowledge areas of the field of architecture can be divided into sub-groups, each of which suggests potential linkages to other fields of knowledge. For convenient reference, the School has classified its courses into the following four groups:

Group A. history and theory
Group B. building science and technology
Group C. socio-behavioural
Group D. implementation processes and skills

Through prerequisites, students will take introductory courses in each of these groups, and then build more depth by choice of suitable electives.

To assist the student with the selection of courses to establish an adequately balanced program building on his previous academic background and experience and to fulfil his personal objectives, each student will be assigned to a faculty advisor. Together they will develop and record a personalized course of study that will be used at Registration as a basis for course approvals.

APPENDIX 'B'

SCHOOL OF ARCHITECTURE (continued)

Course of Study

1. To meet the requirements for the M.Arch. degree the student must complete:

		Total credits
1	1 credit orientation Workshop	1
17	1½ credit courses or equivalent	25½
4	1 credit courses (block scheduled)	4
5	4½ credit design tutorials	22½
	Graduation Projects: Parts 1 & 2	6
	for a total of	59 credits

2. During his first term in the School the student will be required to develop a course of study based on his previous academic and other experience in consultation with and for approval of his advisor. This course of study will remain on file and may be changed at a later date, but all changes must be discussed and approved by the advisor.

3. Students shall work out their courses of study after selecting courses on the following basis:

a) from Group A.
- one of
  - 404 Architectural History
  - 405 Architectural History
  - 445 Current Theories of Architecture
- plus one of
  - 306 Site Planning
  - or 424 History of Urban Form

b) from Group B.
- each of
  - 426 Arch. Technology 1
  - 427 Arch. Technology 2
  - 452 Arch. Sci. 1
  - 453 Arch. Sci. 2
  - 416 Arch. Structures 1

c) from Group C.
- one of
  - 407 Research Methods in Arch. Evaluation
  - 409 Introduction to the Behavioural Aspects of Design
- and one of
  - 408 Social Aspects of Arch. Space
  - 470 Social Factors and Urban Form: Workshop
  - 471 The Behavioural Basis of Arch. Meaning
  - 472 Meaning and the Built Environment
  - 473 Social and Behavioural Aspects of Design Process

d) from Group D.
- 423 The Process of Architecture

APPENDIX 'B'

SCHOOL OF ARCHITECTURE

Course of Study (continued)

3. e) Further courses elected from Groups A. B. C. & D. to complete the course requirements as set out in 1. above. Where a student can demonstrate that he has successfully completed a similar course at another university to one of the courses in Group A. B. C. & D. on the above list he may substitute another course from this approved list for that course in this program. With the approval of his advisor, a student may substitute courses given by other Departments of the University and take them for credit toward these elective requirements up to a maximum of 6 credits. Additionally, a student who elects to participate in the Study Abroad program may substitute 461 Study of Architecture Abroad, for elective courses totalling 4½ credits.

Further for all students:

f) 402 Elements of Architecture, will be taken in the First term of First year following 580 Introductory Workshop, and in conjunction with 581 Arch. Design 1A. All new students entering this program will take these three courses regardless of prior experience.

g) Design Tutorials 582, 583, 584, 585 will be taken in sequence following successful completion of 581. Students may elect specific tutorial sections from the list available each term. Additionally, students who elect to participate in the Study Abroad program may substitute 586 Arch. Design Abroad for 583, 584, or 585. Students who have taken equivalent design studio courses in a professional degree program in Architecture at another university may, on the basis of their performance in 581, petition for and be given credit for 582 and, in some cases, 583 but will be required to complete 584, 585 and 590 in addition to 581 in order to graduate from this program.

h) 589 Graduation Project Part 1 Report, will be taken in Third Year followed by 590 Graduation Project, Part 2 which will normally be taken in the next consecutive term.

4. The List of Courses is as follows:

GROUP A 1½ credit courses

305 Architecture and Urbanization
306 Site Planning and Urban Space
402 Elements of Architecture
403 Elements of Architectural Planning
404 Architectural History
405 Architectural History
424 History of Urban Form
425 History of Urban Planning: Workshop
442 Housing and Community
447 Urban Design: Workshop
445 Current Theories of Architecture
502 Contemporary Issues in Architecture
503 History of Architectural Theory and Philosophy
504 Planning the Residential Environment
506 History of Theories of Architecture
511 Housing and Community Planning

APPENDIX 'B'

SCHOOL OF ARCHITECTURE

Course of Study (continued)

GROUP B 1½ credit courses

426 Arch. Technology 1
427 Arch. Technology 2
531 Arch. Technology 3
416 Arch. Structures 1
436 Arch. Structures 2
535 Arch. Structures 3
452 Arch. Science 1
453 Arch. Science 2
533 Arch. Science 3
534 Energy & Building Design
521 Geometry of the Build Environment
417 Computer Applications in Arch. 1
519 Computer Applications in Arch. 2
536 Morphology and Structure of Built Form

GROUP C

409 Introduction to the Behavioural Science in Architecture
408 Social Aspects of Architectural Space
470 Social Factors in Urban Form: Workshop
471 The Behavioural Basis of Architectural Meaning
472 Meaning and the Built Environment
407 Research Methods in Architectural Evaluation
473 Social and Behavioural Aspects of Design Process
474 Introduction to Facilities Programming

GROUP D

410 Architectural Graphics
418 Systems Analysis
423 The Process of Architecture
450 Design Management
451 Architectural Practice
480 Project Planning: Workshop
540 Building Programming

Note: Student should consult the School of Architecture Handbook for the list of one-credit courses available in this session under the number and title Arch 495 Special Topics in Architecture.

Standing and Promotion (1982-83 Calendar statement - N.B. the course numbers will require adjusting for 1981-82)

A minimum grade of 50% is required to pass a LECTURE COURSE or a DESIGN TUTORIAL. A student, full or part-time, must obtain an average grade of not less than 65% over each term's work. With the approval of the instructor a student may be allowed to write a Supplemental Examination in a lecture course to raise his grade or his average to an acceptable level. No Supplementary Examination is allowed in a Design Tutorial, and a student who is required to repeat it or who wishes to raise his grade or average may use the Summer Design Tutorial for this purpose, or repeat the Design Tutorial in a subsequent term. The School may direct that certain work will be necessary to prepare for the supplementary examination or Design tutorial.

APPENDIX 'B'

SCHOOL OF ARCHITECTURE

Standing and Promotion (continued)

Successful completion of Arch 581 is a mandatory requirement for entry into any further tutorials. Failure requires that the student withdraw from the School for a minimum period of 8 months but he will be permitted to re-register in the subsequent Fall term.

After a review, in certain circumstances, a student who has failed Arch 581 may be allowed to proceed to Arch 582 which then must be completed satisfactorily. Failure of 582 in this case would require that the student withdraw from the School. Failure of two consecutive Design tutorials would require that the student withdraw from the School.

No student will be permitted to proceed to the following year if he has failed a DESIGN TUTORIAL, or if he has passed his DESIGN TUTORIALS he cannot carry a deficiency of more than one LECTURE COURSE into the next term. Entry into the final year is conditional upon all previous work being completed.

A student who does not meet the above requirements may be required either to repeat the work of the year or to withdraw from the School for a period of at least a year in order to obtain practical experience in the field of architecture. At no time will a student be allowed to repeat a year more than once.

Arch 589 M.Arch Graduation Project: Part I (1½ credits)

Project Report Preparation

Each student enrolled in Arch 589 will select a member of faculty from an approved list to act as his mentor. This mentor must approve the topic and agree on the approach the student proposes to take to the graduation project, and record this approval and information on an approved form before the student may register in this course. The student must complete the Project Report by a specified deadline at the end of the term in which he is registered in the course.

Arch 590 M.Arch Graduation Project: Part 2 (4½ credits)

No student will be permitted to proceed with Arch 590 until he has passed Arch 589 and reduced his outstanding course requirements to 4½ units or less, which may then be taken simultaneously with 590 in a final term. Each student enrolled in Arch 590 shall have a Committee, the Chairman of which will normally be the mentor from Part I, or a member of the faculty chosen from an approved list by the student. The Chairman, in consultation with the student, will appoint 2 additional members to the Committee who may be from the School faculty or the community at large. The student will proceed under the direction of the Chairman who will call a minimum of three meetings of the Committee at appropriate stages of the project to review progress. At the final meeting of the Committee prior to the last day of classes in the term in which the project was begun, the Committee will determine whether the project is complete and the Chairman shall, in consultation with the Committee, assign a grade.

APPENDIX 'B'

SCHOOL OF ARCHITECTURE

Arch 590 M.Arch Graduation Project: Part 2 (continued)

A student who has achieved a passing grade will be required to make a public presentation of his/her work at a date scheduled by the School, and to submit a final report in duplicate by a specified deadline in order to complete the requirements for the degree.

If a fail grade is assigned the student will be required to withdraw from the School for a minimum period of 12 months. He may then register for Arch 590 and begin again with a new topic, mentor and committee.

If the Committee decides that the graduation project is not complete the student must re-register for the next consecutive term. The student must complete the project by the end of that term. If he fails to do so a fail grade will be assigned and the student will be required to withdraw and recommence as above.

At graduation, successful candidates will be graded as follows: First Class, an average of 80% or over; Second Class, 65% to 79%. Honours standing will be granted to a student who has obtained an overall average of 80% or over in the Final Year and 75% or over during the two previous years with no subject below 50%.

Practical Experience

In the summer months students are encouraged to gain practical experience in areas closely related to their interests in the School. Travelling is encouraged, or work in an architect's, engineer's, landscape architect's or planner's office. Alternatively, research is suggested at a university or with a public or private organization. Experience in the field of construction is also recommended. The School will advise the student whenever possible.

Proposed Program Changes - 1981-82 Session

The changes outlined in this section can all be introduced in the 1981-82 session to improve the existing B.Arch program and in anticipation of the major changes in 1982-83, as they do not require additional resources.

1. Summary of Course Revisions, Additions, Deletions

Deletions:	Arch 411	Building Principles	
	Arch 413	Building Practice	
	Arch 412	Building Materials	
Revisions:	Arch 407	Change description	
	Arch 408	Change description	
	Arch 416	Change title, description	
	Arch 417	Change title	
	Arch 436	Change title, description, add prerequisite	
Additions: New Courses	Arch 426	Architectural Technology 1	(1½ credits)
	Arch 427	Architectural Technology 2	(1½ credits)
	Arch 452	Architectural Science 1	(1½ credits)
	Arch 453	Architectural Science 2	(1½ credits)

APPENDIX 'B'

SCHOOL OF ARCHITECTURE

Proposed Program Changes - 1981-82 Session (continued)

2. Summer Session

The School of Architecture will offer a six-week design tutorial commencing in May 1982 during which instruction will be provided 8 hours/day for 4 days/week. This Design Tutorial may be used by students to makeup a failed Design Tutorial, or to attempt to raise a grade to meet the overall average grade requirements, or for enrichment on a non-credit basis.

3. New Regulations

The regulations approved by Senate for the 1980-81 session will be changed to conform to the statement under the heading "Standing and Promotion". The intention is to proceed to upgrade the academic performance requirements in 1981-82 in anticipation of the major changes requested for 1982-83.

4. Revisions to 1981-82 Calendar

The Calendar Statement for 1981-82 will be revised to include the program changes outlined in this Section.

Proposed Program Changes - 1982-83 Session

The changes outlined in this section will be implemented in the 1982-83 session or in subsequent years as the new program is phased in, provided that new resources are available.

1. Implement the New M.Arch Program

The new M.Arch program would appear in the 1982-83 Calendar and the first students will be recruited into it during the Summer of 1982.

Students who were admitted to First year of the B.Arch program in the 1981-82 session would be given the option of transferring to the new M.Arch program in the 1982-83 session, in which case they would have to complete an additional 4 one-credit courses and meet all the other requirements in order to obtain the M.Arch degree.

Students who do not opt to join the M.Arch program as above, and all other students will continue under the B.Arch program as it stands in the 1981–82 Calendar until they complete the requirements for the B.Arch degree.

The first M.Arch graduates in this program would thus appear in June 1984.

2. Summary of Course Revisions, Additions, Deletions

Deletions:

Arch 430 Architectural Acoustics
Arch 431 Light, Colour and Space
Arch 437 Building Services (Mech.)
Arch 438 Building Services (Elect.)
Arch 456 Structures: Special Topics

APPENDIX 'B'

SCHOOL OF ARCHITECTURE

Proposed Program Changes - 1982-83 Session

2. Summary of Course Revisions, Additions, Deletions (continued)

Revisions:	Arch 400	Change number to 581
	Arch 401	Changes number to 582
	Arch 406	Change name, number to 580
	Arch 420	Change number to 583
	Arch 421	Change number to 584
	Arch 425	Add prerequisite
	Arch 440	Change number to 585
	Arch 446	Change number to 502
	Arch 448	Change number to 506
	Arch 455	Change number to 534 and description
	Arch 457	Change number to 521
	Arch 458	Change number to 587
	Arch 459	Change number to 588
	Arch 460	Change number to 586 and description
	Arch 461	Change description
	Arch 498	Change number to 589, description, title
	Arch 499	Change number to 590, description, title
	Arch 503	Add prerequisite
	Arch 505	Change number to 536, add prerequisite
	Arch 508	Change number to 540, description, title
Additions: New Courses (1½ credits each)	Arch 409	Introduction to Behavioural Science in Architecture
	Arch 419	Computer Applications in Architecture 2
	Arch 470	Social Factors in Urban Form
	Arch 471	Behavioural Basis of Architectural Meaning
	Arch 472	Meaning and the Built Environment
	Arch 473	Social and Behavioural Aspects of Design Process
	Arch 474	Introduction to Facilities Programming
	Arch 480	Project Planning
	Arch 531	Arch. Technology 3
	Arch 533	Arch. Science 3
	Arch 535	Arch. Structures 3
Additions: (1/4)d credit courses	Arch 495	Special Topics in Architecture

3. Design Tutorials

While no major change in the structure and format of the Design Tutorials is proposed it is intended that, with additional resources, more personalized instruction can be given to each student and hence a more individualized course of study in design can be achieved.

APPENDIX 'B' (continued)

FACULTY OF ARTS

Economics

Change in program requirements for the Major in Economics:

Calendar entry -

change line 1 to read: Mathematics 100 or 111; and Mathematics 101

change line 3 to read: Economics 200 (or 202 and 202 or 301 and 302, with permission of the Department)*

change footnote to read: *Economics 201 and 202 or 301 and 302 may be substituted for Economics 200 with permission of the Department. Economics 306 and 307 may be substituted for Economics 200, but only with the permission of the instructors of Economics 306 and 307.

last paragraph, substitute Economics 200 for Economics 301, 302.

New courses	ECON 200 (3)	Intermediate Economic Theory
	ECON 201 (1½)	Intermediate Microeconomic Analysis
	ECON 202 (1½)	Intermediate Macroeconomic Analysis
	ECON 303 (1½)	Intermediate Microeconomics
	ECON 304 (1½)	Intermediate Macroeconomics

Changes

ECON 301 and 302 - change in description, stipulations and hours
ECON 306 - revision of stipulation
ECON 307 - change in prerequisites and stipulation
ECON 406, 407, 420, 437, 440, 447, 460, 461, 476, 490, 456, 417, 450, 454, 455, 465, 470, 480, 487 - change in prerequisites

Major in Music Theory

The program effectively begins in the third year of undergraduate study since in the first two years the student takes a general program. In order to be admitted to the major in theory, except by special permission of the division, the student should have an overall second-class average in each of the first two years, and first-class marks in both Music 100 and Music 200.

Requirements for graduation with B.Mus. in Music Theory: (1) overall second class average in each of the third and fourth years, and (2) successful completion of a fourth-year theory project. This will be undertaken as Music 402 or 449, but the work should be read and approved by one faculty member in addition to the 402 or 449 supervisor. In appropriate cases the project may involve composition or performance.

APPENDIX 'B'

FACULTY OF ARTS

Major in Music Theory (continued)

First Year			Second Year		
(100)	Theory of Music I	3	(200)	Theory of Music II	3
(120)	[1]History of Music I	3	(320)	[1]History of Music II	3
(145)	[2]Music Performance	2	(245)	[2]Music Performance	2
(143)	[2](Class Piano)	(1)	(243)	[2](Class Piano)	(1)
	Large Ensemble	1		Large Ensemble	1
(100)	[3]English	3	(200)	[3]English	3
	[3]Elective in Arts	3		[3]Elective in Arts	3
		15 or 16			15 or 16

Third Year			Fourth Year		
(300)	Theory of Music III	3	(400)	Theory of Music IV	3
(107)	[1]Composition I	3	(309)	[1]Orchestration	2
(345)	[1]Music Performance	2	(445)	[1]Music Performance	2
	[4]Large or Small Ensemble	1		[5]Large or Small Ensemble	1
	[4]Keyboard Harmony	1		[5]Music Elective(s)	3 or 1½
	[3]Electives in Arts	4½		[5]Theory Project	1½ or 3
	Physics 341	1½		[3]Elective in Arts	3
		16			15½

[1]The music performance requirement will be fulfilled by four years of study on the student's principal instrument.

[2]Class Piano 143 and 243 will be required of students whose principal instrument is not a keyboard instrument. The purpose is to prepare students for the study of keyboard harmony in the third year. Students with some keyboard background may be allowed to take Piano 144 and 244 instead. Students whose principal instrument is a keyboard instrument will not study a secondary instrument except as an extra course.

[3]The program provides for 13½ units of Arts electives. Students must have at least 6 units of credit in one department other than Music. If English courses are elected to complete this 6-unit concentration requirement, they must be in addition to English 100 and 3 additional units of English. In addition to these elective requirements, it will be advisable for students contemplating graduate study in theory to study some German.

[4]Students with the required keyboard proficiency may meet the keyboard harmony requirement of the t hird year by electing and passing Music 149. Other students should elect Music 343 or its equivalent as provided by the department.

[5]Fourth-Year students have the option of electing 3 units of music electives and doing a one-term (1½-unit) 402 project, or of electing only 1½ units of music elective and doing a two-term project (as Music 449, for 3 units). Appropriate scope for the project will be the determining factor here, and will be decided by the student and the advisor in consultation.

APPENDIX 'B'

FACULTY OF ARTS (continued)

Master in Journalism Program

Admission

1. Applicants must have a baccalaureate degree.
2. Applicants must provide an example of their writing.
3. Applicants will be interviewed by an Admissions Panel which will consider academic background (including preparation in languages other than English), journalistic experience, particular expertise and motivation before deciding on the admission of any applicant.

Two-Year Curriculum

Students admitted to the Program will complete 30 units of course work consisting of the following:

Graduate and/or undergraduate courses in appropriate academic disciplines (e.g., Political Science, Economics, History, Literature, Science, Language Studies, etc.)	12 units
Media Studies:	
a) Structure and History of the Media in Canada.	
b) Law in Journalism.	
c) Ethics of Journalism.	
d) Supervised research and report on a special topic.	9 units
Practical Newsroom Skills:	
Research, Reporting, Writing, Editing.	9 units
TOTAL	30 units

In addition, the student is required to complete a substantial internship.

A student successfully completing the requirements of the Journalism Program will receive the degree of Master of Journalism (M.J.).

FACULTY OF COMMERCE AND BUSINESS ADMINISTRATION

New course	COMM 456 (1½) Computer Audit, Security and Control
Changes	COMM 220 - change in number (formerly 222) COMM 320 - change in title, description and prerequisite
Deletion	COMM 375

FACULTY OF DENTISTRY

Change	ORBI 421 - change in number (now ORME 423), title and description

APPENDIX 'B'

FACULTY OF EDUCATION

Educational Psychology and Special Education

Change in program description, now reads:

Diploma in Education of Visually Impaired Children

This program is directed towards the preparation of teachers of children who have impaired vision. The diploma program requires one year of full-time study (a minimum of 12 units and extended practica). Successful completion of the diploma program may partially satisfy requirements for teacher certification in British Columbia. The program consists of: Required courses - EDUC 314, 344, 421, 415, 455, 448, Ophthalmology 390 and EDUC 399 (minimum of 180 hours practical teaching). Students are encouraged to elect EDUC 315, 305 and choose additional electives from EDUC 316, 318, 343, 346, 403, 406, 418, 420, 424, 429, 431, 436, 437, 472, 475. Prerequisite EDUC 312.

Language Education

Change of concentration requirements for Bachelor of Education (Elementary):

11. Reading Education Concentration

4½ units from Education 472, 473, 475, 477. (Experienced teachers may elect Education 476 as 3 of the 4½ units); 3 units from Education 335, 341, 478, 480, 489; 1½ units from Education 312, 337, 338, 349, 389, 474, 486, or 1½ unit elective approved by the Head, Department of Language Education.

Mathematics and Science Education

Change EDUC 409 - change in units from (3) to (1½/3)d

EDUC 370 (1½) and EDUC 371 (1½) combined into one course:
EDUC 369 (3) Curriculum and Instruction in Elementary Mathematics

(Note: EDUC 370 and 371 will be offered for the last time in 1982-83. They will then be replaced by EDUC 369)

Curriculum and Instructional Studies

Change EDUC 458 - change in units from (1½) to (1½/4½)d

English Composition Requirement

In order to qualify for the degree of Bachelor of Education (Elementary, Secondary, or Special Education), students must satisfy the English Composition Requirement. This means that in addition to completing all English course requirements set out in their degree programs, students must pass the English Composition Test administered by the Faculty of Arts. Students entering the Faculty of Education at Years One and Two should satisfy the requirement as early as possible, and in no case after Third Year. Those entering the Third or later years of the program must pass the Composition Test within one academic year of their initial registration in the Faculty of Education. Those registered in the One-Year Program for Graduates of Other Faculties, or in Diploma programs leading to Teacher Certification, must pass the Test before they are deemed to have completed their programs.

APPENDIX 'B'

FACULTY OF EDUCATION

English Composition Requirement (continued)

Students may write the Test during Registration week, the December examination period, and the April examination period.

Students who anticipate difficulty passing the Test are advised to enrol in a remedial English course in the Centre for Continuing Education.

FACULTY OF FORESTRY

Changes — FRST 443 - change in title and description
FRST 442 - change in description

FACULTY OF GRADUATE STUDIES

Anatomy

Change — ANAT 508 - change in hours and units from (1) to (1½)

Animal Science

New course — ANSC 506 (1½/3)c Reproductive Patterns in Domestic Animals

Biochemistry

Change — BIOC 508 - change in hours and units from (1) to (1½)

Botany

Change — BOTA 527 - change in description, prerequisites and units from (1) to (1½)

Chemical Engineering

New courses — CHML 561 (1-2)c Particulate and Multiphase Systems
CHML 562 (1-3) Advanced Process Design Project

Change — CHML 557 - change in title, description, hours and units from (1-3)c to (1-2)c

Commerce

Changes — COMM 529, 534, 536, 563, 569 - change in title and description
COMM 562 - change in description

Creative Writing

New course — CRWR 521 (3) Editing and Managing a Literary Magazine

Electrical Engineering

Change — ELEC 592 - change in title and description

English

Change — ENGL 547 - change in title

APPENDIX 'B'

FACULTY OF GRADUATE STUDIES (continued)

Geological Sciences

New course	GEOL 546 (1½) Coal Geology

History of Medicine and Science

Change	MEDH 501 - change in description, hours and units from (1½) to (1½/3)c

Mathematics

New course	MATH 541 (1½) Applied Multivariate Analysis

Music

Changes	MUSC 507 - change in units from (3) to (1½/3)d MUSC 508 - change in units from (3) to (1½/3)d MUSC 504 - change in description MUSC 520 - change in title, description and prerequisites

Physics

Changes	PHYS 534 - change in units from (1) to (2) PHYS 535 - change in units from (1) to (2)

Plant Science

New course	PLNT 533 (1½) Herbicide Biochemistry and Physiology
Change	PLNT 538 - change in description, prerequisites and units from (3) to (1½)
Deletion	PLNT 524

Ed.D. Program in Curriculum Studies

Admissions

Standard University and Faculty requirements for admission to Ed.D. programs will be applied to all applicants. In addition, candidates will normally be expected to hold an M.A. or M.Ed. in general curriculum studies or in a field such as Art Education, Elementary Education, Early Childhood Education or Communications, Media and Technology. Candidates from such fields should have completed a core of general curriculum studies. Those planning to continue specialist studies in areas, e.g. mathematics, science and music education, which already offer doctoral programs will be directed to those.

Evidence of successful teaching or other appropriate professional experience will be expected. Each applicant will be expected to submit an example of scholarly work, e.g. a master's thesis, special paper or research report of a basic or applied nature. A statement of career path to the point of application and of future career intentions together with a justification for seeking a doctoral degree will also be required. Whenever possible an interview will be conducted with each applicant.

APPENDIX 'B'

FACULTY OF GRADUATE STUDIES

Ed.D. Program in Curriculum Studies (continued)

Specific Elements and Requirements

1. Residence: two winter sessions after completion of the master's degree normally will be required.

2. Thesis: the major component of the program will be the candidate's doctoral thesis. It will involve extended research into curriculum policy, curriculum development, implementation or evaluation, either in terms of general issues or as applied to a specialist area. Students interested in pursuing thesis topics in specialist areas with well established doctoral programs will normally do so within those programs or interdepartmentally. Course and seminar work needed to prepare the candidate for his/her thesis will fall into the categories indicated below.

3. Seminar and course requirements: some of these will normally be met at the master's level. The requirements will be distributed as follows:

   (a) Conceptual Foundations and Research Methodology

   Includes seminars in curriculum studies, research design and the doctoral seminar (Education 601)

   (b) Major Specialization

   Seminars and directed study related to the student's special interest. Interests could include: a curriculum level or area, e.g. elementary or early childhood education; a teaching speciality, e.g. social studies, or other professional role, e.g. the use of media; general curriculum issues related to policy making or curriculum planning and development, including program implementation and evaluation. Specialist needs served by existing doctoral programs in such areas as science, mathematics, and music education will, of course, continue to be met by those programs which also have the advantage of access to the general curriculum offerings of the department.

   (c) Cognate Studies

   Seminars and directed studies in other departments within or outside the Faculty of Education that will enhance knowledge and research skills relevant to curriculum studies, in particular to the student's major specialization.

4. Comprehensive Examination: The comprehensive examination shall be held after completion of all required course work. The program supervisor in consultation with the student and the student's instructors will set an examination which focusses on interpreting, synthesizing and evaluating knowledge in the curriculum field.

5. Oral Defense of Thesis: Upon completion of the thesis, the candidate defends it in accordance with Faculty of Graduate Studies regulations.

APPENDIX 'B'

FACULTY OF GRADUATE STUDIES (continued)

Ph.D. Program in Human Learning, Development and Instruction

Admission

Applicants must normally have completed a Master's degree in Educational Psychology, Psychology, or a closely related discipline, and satisfied the following admissions criteria:

(a) Normally a First-Class average based on relevant graduate and senior undergraduate courses, with First-Class standing in at least nine units of graduate work. Students who do not meet this criterion may submit results on the Graduate Record Examination (GRE) Aptitude Test as supplementary evidence of their academic potential;

(b) Clear evidence of research ability as shown by an acceptable Master's thesis, a statement of research interests and reasons for pursuing advanced study, and positive evaluations of research potential by three referees; and

(c) Teacher education and/or adequate experience as a teacher or instructor in an educationally relevant position is deemed desirable (e.g., public or private schools, junior colleges, universities, vocational institutions).

Prerequisites

Applications will be expected to have satisfactorily completed the following prerequisite work as part of their undergraduate and graduate programs:

(a) Courses in Human Learning, Development, and Instruction comparable in number and content to those included in the M.A. program for HLDI;

(b) Courses in Research Design and Statistics, including factorial (fully crossed, hierarchial, repeated measures) experimental and quasi-experimental designs and corresponding statistical analyses procedures;

(c) A graduate course in Measurement/Psychometrics; and a

(d) Master's Thesis.

Students who have not completed all the prerequisites listed above may be provisionally admitted. They must complete the prerequisite work during the first year of study with a First-Class average in all courses taken.

Program Components

Students normally will spend two to three Winter sessions in full-time residence at the University.

Dissertation. The dissertation, which forms the major component and marks the culmination of the candidate's studies, will embody results of independent, substantial, original research, designed to contribute to the articulation among human learning, development, and instruction.

To prepare the candidate for the dissertation, some advanced coursework, seminars, and supervised research experience typically will be necessary. These are outlined below.

APPENDIX 'B'

FACULTY OF GRADUATE STUDIES

Ph.D. Program in Human Learning, Development and Instruction

Program Components (continued)

Coursework. Advanced course work to be completed by each student will be determined by the candidate's program guidance committee, taking into account his/her background and specific interests within HLDI. It may include:

(a) Research Methodology: Each student will be expected to develop conceptual and analytical skills appropriate for theory construction and evaluation and the analyses of qualitative/quantitative data.

(b) Major: Coursework and seminars related to each student's major area of interest, culminating in the dissertation research. Students will be expected to acquire knowledge of earlier and current theories, issues, research practices, and results in the area.

(c) Minor: It is expected that a minor area, which supports the major area, will be taken outside of HLDI, and that necessary courses and seminars will be selected in consultation with representatives from the appropriate departments.

Supervised Research. Beginning in the first year, each student will be expected to conduct some independent research and/or to participate in the research of a faculty member, and will be encouraged to report the results of these investigations at appropriate professional conferences and/or in appropriate refereed journals. Financial assistance to support students engaged in supervised research will be provided, as appropriate, through SSHRC Doctoral Fellowships, University Graduate Fellowships, independent funding through such agencies as the Educational Research Institute of British Columbia, grants to faculty members, and research assistantships set aside for Ph.D. students by the Faculty of Education.

Progress Reviews, Comprehensive Examinations. The progress of each student will be reviewed in the spring of each year by the Department of Educational Psychology in consultation with the Candidate's Committee and by the Dean of the Faculty of Graduate Studies. A student may be asked to withdraw from the program if progress has not been satisfactory.

Student attainment of research competence and knowledge of human learning, development, and instruction will be assessed through completed course work and by three comprehensive examinations: a preliminary comprehensive in research methodology and a qualifying examination in each of the major and minor areas.

Course work taken in each year will be expected to be completed with a First-Class average. At the end of the first year, each student will be required to write a research methodology comprehensive. The major and minor qualifying comprehensives normally will be taken during or at the end of the second year, following completion of all appropriate course work.

Upon satisfactory completion of the qualifying comprehensives, the student will be advanced formally to candidacy for the Ph.D. degree.

Final Oral Examination. Each candidate will defend his/her dissertation following the procedures of the Faculty of Graduate Studies.

APPENDIX 'B' (continued)

FACULTY OF MEDICINE

History of Medicine and Science

New course — MEDH 400 (1½) History of Medicine to the end of the Nineteenth Century

Change — MEDH 400 (1) History of the Health Sciences - change in number, title, description, units, hours and prerequisites, now:
MEDH 401 (1½) History of the Health Sciences in the Twentieth Century

Pathology (Division of Medical Microbiology)

Change — MICB 425 - change in number, now: PATH 427

SCHOOL OF NURSING

English Composition Requirement

To qualify for the degree of B.S.N. students must satisfy the English Composition requirement of the School of Nursing. To do this students must obtain credit for English 100 and must pass the English Composition Test administered by the Faculty of Arts.

Students (including Transfer Students) who have obtained credit for English 100 but who have not passed the Composition Test will write it during Registration Week. The Test will also be given during the December and April examination periods. Students who anticipate difficulty passing the Test are advised to enrol in a remedial English course in the Centre for Continuing Education.

Changes — NURS 201, 301, 303 - change in description

First Year of Program - change requirement to:
HMEC 209 or HMEC 203

PHARMACEUTICAL SCIENCES

Change — PHAR 416 - change in description

SCHOOL OF PHYSICAL EDUCATION AND RECREATION

New courses — PHED 290 (1) Orienteering
PHED 382 (1½) Meaning and Values in Sport

Changes — B.P.E. Program - Second Year
Under Note 2, Non-P.E. Electives, add the following:
"Education courses may be credited towards the B.P.E. degree only on prior written approval by the Chairman of the Undergraduate Committee of the School."

Also in Note 2, replace "Recreation 296 ..." with:
"Recreation courses may be included as electives in the category of Physical Education Theory on approval of the Chairman of the Undergraduate Committee."

APPENDIX 'B'

SCHOOL OF PHYSICAL EDUCATION AND RECREATION

Changes

B.P.E. Program - Second Year (continued)

Under Degree Requirements change wording to:
"Courses in the Faculties of Arts or Science or Commerce and Business Administration and Education ... Physical Education and/or Recreation theory ..."

Under Physical Education Activity Option B, Note 3, replace "Courses in Education may not be elected" with:
"Education courses may be credited towards the B.P.E. degree only on prior written approval of the Chairman of the Undergraduate Committee of the School."

Under General Notes for all Students (Option A and Option B) replace note 6 with:
"Recreation courses may be included as electives in the category of Physical Education Theory on approval of the Chairman of the Undergraduate Committee."

B.R.E. Program - changes

Calendar entry:

This program is intended for students planning a career in Recreation. Completion of this program does not satisfy the requirements for admission to the post-graduate one year program (Secondary) of the Faculty of Education. However, a graduate with an acceptable average may be admissible to the one year program (Elementary).

The B.R.E. degree will be awarded on the completion of a minimum of 69 units of approved course work.

Degree requirements:

Leisure Studies Core	4.5 units
Professional Core	12.5 units
Courses required outside of the Department	25.5 units
Electives	27.0 units

First Year			Units
Recreation 101	-	Introduction to Leisure Studies	1.5
Recreation 196	-	Introduction to Recreation and Leisure Services	1.5
P.E. 164	-	Dynamics of Motor Skill Acquisition	1.5
English 100	-	Literature and Composition	3.0
Psychology 100	-	Introductory Psychology	
OR *206	-	Dynamics of Behaviour	3.0
Electives	-	See Notes	6.0
			16.5

APPENDIX 'B'

SCHOOL OF PHYSICAL EDUCATION AND RECREATION

B.R.E. Program - changes (continued)

Second Year		Units
Recreation 201	- Play	1.5
Recreation 296	- Recreation Program Leadership	1.5
Recreation 297	- The Recreation Program	1.5
Math 203	- Statistical Methods	1.5
Commerce 120	- Principles of Org. Behaviour	1.5
Sociology 200	- Introduction to Sociology	3.0
Poli. Sci. 200	- The Government of Canada	1.5
Electives	- See Notes	4.5-6.0
		16.5-18.0

Third Year		
Recreation 301	- Leisure in Canada	1.5
Recreation 375	- Recreation Leadership and the Group Process	1.5
Recreation 396	- Recreation Fieldwork I	1.5
English 301	- Practical Writing	1.5
Poli Sci. 302	- Public Administration	3.0
Psychology 308	- Social Psychology	3.0
Sociology 380	- Introduction to Social Survey Design and Analysis	1.5
Electives	- See Notes	3.0-4.5
		16.5-18.0

Fourth Year		
Recreation 492	- Recreation Management	1.5
Recreation 496	- Recreation Fieldwork II	3.0
Planning 425	- Urban Planning	1.5
Electives	- See Notes	10.0-12.0
		16.0-18.0

Notes: Students must elect 3 units from the science courses listed below and 3 units from the recreation program areas listed below. It is expected that these 6 units of electives should be completed by the end of second year. Of the remaining 21 units of electives students must elect at least 12 units from an area of emphasis listed below. These 21 units of electives should be chosen in consultation with and subject to the approval of the Faculty Advisor.

Science Courses: Biology 101 or 102, 310, 311, 313, Botany 310, Chemistry 103, 110, 120, Computer Science 101, 115, 200, Geography 101, Geology 105, 107, Mathematics 100, 101, 105, 111, 130, Physics 110, 115, 120, 140.

*Psychology 206 may be substituted for Psychology 100 in the Second Year.

APPENDIX 'B'

SCHOOL OF PHYSICAL EDUCATION AND RECREATION

B.R.E. Program - changes

Notes: (continued)

Recreation Program Areas: Physical Education, Art (Art Education or Fine Arts), Music (Music Education or Music), or Theatre.

Areas of Emphasis:

Administration - Two (2) courses are required for all students in this area: Economics 100 or 309 and Commerce 159. Other courses are Recreation 461, Recreation 499, Computer Science 101, 115, and 200, Commerce 222, 261, and 322, Economics 360, 361, and 370.

Therapeutic Recreation - One (1) course is required of all students in this area: Recreation 365. Other courses are Recreation 461, 366, 367 and 499, Education 312, 318, 403, and 429, Home Economics 210, and 414, Physical Education 262, and 362, Psychology 300, and 322, Sociology 363 and 473.

New courses

RECR 201 (1½) Play
RECR 296 (1½) Recreation Program Leadership
RECR 301 (1½) Leisure in Canada
RECR 499 (1½-4½)d Seminar on selected topics in Recreation and Leisure Studies

Changes

RECR 397 - change in description, prerequisite, number and title, now 297, Recreation Programs
RECR 465 - change in number and prerequisite, now 365
RECR 466 - change in number, now 366
RECR 467 - change in number and description, now 367
RECR 396 - change in title, description, hours and prerequisite
RECR 492 - change in title and description
RECR 496 - change in description, prerequisite and units from (1½) to (3)
RECR 375 and 461 - change in description

SCHOOL OF REHABILITATION MEDICINE

New course: RHME 427 (3) Selected Problems in Rehabilitation

Deletions: RHME 424, 426, 428

FACULTY OF SCIENCE

Biology

Change: BIOL 422 - change in description

Botany

Change: BOTA 427 - change in description

APPENDIX 'B'

FACULTY OF SCIENCE (continued)

Chemistry

Changes — CHEM 220 - change in description and prerequisite
CHEM 423 - change in prerequisite

Program changes — Combined Honours in Chemistry and Mathematics

Change fourth year:

From: Chemistry 404 (1)
Additional Chemistry (3)

To: Chemistry 311/321 (2)
Additional Chemistry (2)

Combined Honours in Chemistry and Physics

Change program to:

Third Year		Fourth Year	
Physics 309	(2)	Physics 307	(1)
Elective	(1½)	Physics 308	(2)
		Additional Physics (per consultation)	(3)
		Chemistry 311	(1)
		Chemistry 321	(1)
		Additional Chemistry (per consultation)	(3)
Total Units (16½)		Total Units (16½)	

Delete Chemistry 210 as an option in Second Year from the following programs:

Majors in Biochemistry
Honours in Biochemistry
Combined Honours in Biology and Chemistry
Majors in Chemistry
Honours in Chemistry
Combined Honours in Chemistry and Mathematics
Combined Honours in Biochemistry and Chemistry
Combined Honours in Physics and Chemistry
Honours in Physiology

Deletion — CHEM 210

Computer Science

Change — CPSC 311 - change in prerequisite

Geological Sciences

New courses — GEOL 235 (0) Field Techniques
GEOL 304 (3) Structural Geology I

APPENDIX 'B'

FACULTY OF SCIENCE

Geological Sciences (continued)

Changes

GEOL 216 - change in title, description and prerequisite
GEOL 315 and 446 - delete GEOL 216 as a prerequisite
GEOL 421 - change in prerequisites
GEOL 404, 418, 426, 435, 472 - replace GEOL 314 with GEOL 304 in the prerequisite statement
GEOL 305 - change in description and hours
GEOL 330, 333 - change in description
GEOL 415, 416 - change in description and prerequisite
GEOL 435 - change in prerequisite

Deletion

GEOL 314

Program changes

Majors in Geology

Change program to:

Third Year		Fourth Year
Geology 304	(3)	[1]Geology 415 or 425
Geology 305	(1½)	[2]Additional Geology units
Geology 320	(3)	[2]Electives
Geology 321	(1½)	Arts elective
[1]Geology 435	(1½)	
[2]Elective	(1½)	
Arts elective	(3)	
	(15)	

[1]Field School in May after Third Year.
[2]At least 6 units of the electives in Third and Fourth Year from be from approved courses numbered 300 or over in Geological Sciences, Astronomy, Geophysics, Geography, Oceanography, Soil Science, or other pertinent Science or Applied Science.

Honours in Geology

Change program to:

Third Year		Fourth Year	
Geology 305	(1½)	Geology 415 or 425	(1½)
Geology 304	(3)	Additional Gelogy courses	
Geology 320	(3)	numbered 400 or over	(6)
Geology 321	(1½)	Geology 449	(3)
[2]Arts elective	(3)	Elective	(3)
[2]Electives	(4½)	Arts elective	(3)
[1]Geology 435	(1½)		
	(18)		(16½)

[1]Field School in May after Third Year.
[2]Recommended courses in Geology are 315, 322, 323, 333, 342.

APPENDIX 'B'

FACULTY OF SCIENCE (continued)

Geophysics and Astronomy

New course — ASTR 300 (1½) Introduction to Stellar Atmospheres

Changes
- GEOP 210 - change in title, description, prerequisite and number, now GEPA 315
- ASTR 302 - change in description and prerequisite
- GEOP 322 - change in hours
- GEOP 424 - change in prerequisite
- GEOP 426 - change in description
- GEOP 427 - change in description and number, now 321
- GEOP 449 - change in units from (2) to (3)

Deletion — ASTR 303

Program changes — Majors in Geophysics

Change program to:

Third Year		Fourth Year	
Geophysics 320, 321, 322	(4½)	Geology 256, 354, 317	(4½)
Electives*	(3)	Electives*	(7½)

*Electives must include at least 5½ units from upper level geophysics, physics, mathematics or astronomy courses. Note that some elective courses are given only in alternate years.

Honours in Geophysics

Change program to:

Third Year		Fourth Year	
Geology 256	(1½)	Geology 354	(1½)
Geophysics 320, 321, 322	(4½)	Geophysics 449	(3)
Physics 303 or 306	(2)	Electives*	(5)
Physics 309	(2)	Geophysics 426	(1½)

*Include at least 4½ units from upper level geophysics, physics, mathematics or astronomy courses. Note that some elective courses are given only in alternate years.

Combined Honours in Geology and Geophysics

Change program to:

Second Year	Third Year		Fourth Year	
Geology 256 (1½)	Geophysics 320, 321, 322	(4½)	Geology 304 or Geology 354 and 415 or 425	(3)
	Elective*	(1½)	Geology 449 or Geophysics 449	(3)
			Electives*	(5)

*Electives must include at least 1½ units from Geophysics 422, 423, 424, 425, 426. Note that some elective courses are only given in alternate years.

APPENDIX 'B'

FACULTY OF SCIENCE

Geophysics and Astronomy

Program changes (continued)

Combined Honours in Geophysics and Another Subject

Change program from:

Third Year

Physics 303 (2)

TO:

Third Year

Physics 303 or 306 (2)

Combined Honours in Astronomy and Geophysics - Focus Planetary Sciences

Change program to:

Fourth Year

Astronomy 449 or Geophysics 449 (2-3)
Delete footnote 2 and renumber footnote 3. Add to courses in new footnote 2: Astronomy 300 (1½); Geophysics and Astronomy 315 (3) (counts as 1½ units each for Geophysics and Astronomy). Renumber Geophysics 427 to Geophysics 321. Change Geology 216 (1½) to Geology 256 (1½), and Geology 314 (1½) to Geology 304 (3).

Majors in Astronomy

Change program to:

Third Year

Astronomy 301 or 302 (1½)
Astronomy 300 (1½)

Fourth Year

Physics 411 (1½)

Combined Honours in Physics and Astronomy

Change program to:

Third Year

Astronomy 301 or 302 (1½)
Astronomy 300 (1½)

APPENDIX 'B'

FACULTY OF SCIENCE (continued)

Mathematics

New courses	MATH 120 (1½)	Differential Calculus
	MATH 121 (1½)	Integral Calculus
Change	MATH 405 - change in title	

Microbiology

Changes	MICB 302 - change in title, description, hours and prerequisite
	MICB 324, 402 - change in description

Oceanography

New course	OCGY 316 (1½)	Introduction to Plankton Ecology
Change	OCGY 406 - change in description, hours and prerequisite	

The Department of Oceanography is proposing to institute a series of combined honours programs in the 1982-83 academic year. The remaining items in the OCEANOGRAPHY section are all related to this proposed program and will not take effect until this program is instituted.

New courses	OCGY 408 (1)	Oceanographic Methods
	OCGY 409 (1)	Waves and Tides
	OCGY 410 (1)	Marine Pollution
	OCGY 412 (1)	Marine Microbiology
	OCGY 413 (1)	Estuaries
	OCGY 448 (1-3)c	Directed Studies
	OCGY 449 (3)	Oceanography Research

Changes

OCGY 400 - change in number to 300
OCGY 402 - change in number to 301
OCGY 403 - change in number to 302
OCGY 404 - change in title, description and number to 303

New programs

Combined Honours Biology/Oceanography

First Year		Second Year	
Chemistry 110 or 120	(3)	Biology 200	(1½)
English 100	(3)	Biology 201	(1½)
Mathematics 120 and 121 or 100 and 101	(3)	Chemistry 230 or 203	(3)
		Science electives [1,2]	(9)
Physics 110 or 115 or 120	(3)	Non-Science elective	(3)
Biology 101 or 102	(3)		(18)
	(15)		

APPENDIX 'B'

FACULTY OF SCIENCE

Oceanography

New programs (continued)

Combined Honours Biology/Oceanography

Third and Fourth Years

Oceanography 300	(1)	Oceanography 408	(1)
Oceanography 301	(1)	Oceanography 449	(3)
Oceanography 303	(1)	Other Oceanography	(1)
Oceanography 316	(1½)	Biology 300	(1½)
Oceanography 405	(1)	Biology 330	(3)
Oceanography 406	(1½)	Biology 321, 322	(3)
		Other Biology, Botany or Zoology courses numbered 300 or higher	(4½)
		Non-Science elective	(3)
		Science electives[2]	(6)
			(33)

[1]One of Geology 105, Geophysics 120 and Geology 125, Computer Science 115 (or 101 and 118), or Geography 101, and 6 additional units chosen from list given 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.

Combined Honours Botany/Oceanography

First Year		Second Year	
Chemistry 110 or 120	(3)	Biology 200	(1½)
English 100	(3)	Biology 201	(1½)
Mathematics 120 and 121 or 100 and 101	(3)	Botany 209	(1½)
		Botany 210	(1½)
Physics 110 or 115 or 120	(3)	Chemistry 230	(3)
Biology 101 or 102	(3)	Zoology 205	(1½)
	(15)	Science electives[1,2]	(4½)
		Non-Science elective	(3)
			(18)

APPENDIX 'B'

FACULTY OF SCIENCE

Oceanography

New programs (continued)

Combined Honours Botany/Oceanography

Third and Fourth Years

Oceanography 300	(1)	Biology 300	(1½)
Oceanography 301	(1)	Biology 321	(1½)
Oceanography 303	(1)	Biology 322	(1½)
Oceanography 316	(1½)	Botany 301	(1½)
Oceanography 405	(1)	Botany 330	(3)
Oceanography 406	(1½)	Botany 410	(1½)
Oceanography 408	(1)	Botany 415	(1½)
Oceanography 449	(3)	Other Botany courses numbered	
Other Oceanography	(1)	300 or higher [2]	(4½)
		Science elective	(1½)
		Non-Science elective	(3)
			(33)

[1] One of Geology 105, Geophysics 120 and Geology 125, Computer Science 115 (or 101 and 118), or Geography 101, and additional units for required total.

[2] Mathematics 200 is strongly recommended in Second and Third Years.

Combined Honours Zoology/Oceanography

First Year		Second Year	
Chemistry 110 or 120	(3)	Biology 200	(1½)
English 100	(3)	Biology 201	(1½)
Mathematics 120 and 121 or		Zoology 203	(1½)
100 and 101	(3)	Zoology 205	(1½)
Physics 110 or 115 or 120	(3)	Chemistry 230	(3)
Biology 101 or 102	(3)	Science elective [1,2]	(6)
	(15)	Non-Science elective	(3)
			(18)

Third and Fourth Years

Oceanography 300	(1)	Biology 300	(1½)
Oceanography 301	(1)	Zoology 304	(1½)
Oceanography 303	(1)	Zoology 307	(1½)
Oceanography 316	(1½)	Biology 321, 322	(3)
Oceanography 405	(1)	Zoology 340	(3)
Oceanography 406	(1½)	Zoology 402	(1½)
Oceanography 408	(1)	Zoology 440	(3)
Oceanography 449	(3)	Science elective [2]	(3)
Other Oceanography	(1)	Non-Science elective	(3)
			(33)

[1] One of Geology 105, Geophysics 120 and Geology 125, Computer Science 115 (or 101 and 118) or Geography 101, and additional units for required total.

[2] Mathematics 200 is strongly recommended in Second and Third Years.

APPENDIX 'B'

FACULTY OF SCIENCE

Oceanography

New programs (continued)

Combined Honours Chemistry/Oceanography

First Year		Second Year	
Chemistry 110 or 120	(3)	Chemistry 203	(3)
English 100	(3)	Chemistry 220	(3)
Mathematics 120 and 121 or 100 and 101	(3)	Mathematics 200	(1½)
		Mathematics 221	(1½)
Physics 110 or 115 or 120	(3)	Physics 231	(2)
Elective[1]	(3)	Physics 239	(1)
	(15)	Science elective[1]	(3)
		Non-Science elective	(3)
			(18)

Third Year		Fourth Year	
Chemistry 303	(2)	Chemistry 403	(1)
Chemistry 304	(2)	Chemistry 404	(1)
Chemistry 310	(2)	Oceanography 401	(1)
Chemistry 311	(1)	Oceanography 408	(1)
Chemistry 315	(2)	Oceanography electives	(3)
Chemistry 324	(1)	Non-Science elective	(3)
Oceanography 300	(1)	Oceanography 449 (3) and	
Oceanography 301	(1)	Chemistry 421 (1) and	
Oceanography 302	(1)	Chemistry electives (2)	
Oceanography 303	(1)	OR	
Science electives[2]	(3)	Chemistry 449 (3) and	
	(17)	Oceanography electives (3)	(6)
			(16)

[1]One of Geology 105 (or Geophysics 120 and Geology 125), Biology 101 or 102, Computer Science 115 (or 101 and 118), Geography 101.

[2]Mathematics 315, 316 are recommended for Chemistry 304.

Combined Honours Physics/Oceanography

First Year		Second Year	
Chemistry 110 or 120	(3)	Physics 200	(1)
English 100	(3)	Physics 201	(1½)
Mathematics 120 and 121 or 100 and 101	(3)	Physics 206 or 216	(2)
		Physics 209	(1½)
Physics 110 or 115 or 120	(3)	Mathematics 200	(1½)
Elective[1]	(3)	Mathematics 201	(1½)
	(15)	Mathematics 221	(1½)
		Mathematics 315	(1½)
		Science elective[1]	(3)
		Non-Science elective	(3)
			(18)

APPENDIX 'B'

FACULTY OF SCIENCE

Oceanography

New programs (continued)

Combined Honours Physics/Oceanography

Third Year		Fourth Year	
Physics 303	(2)	Physics 401	(1½)
Physics 304	(1½)	Physics 402	(1½)
Physics 306	(2)	Physics 406, 408	(2)
Physics 307	(1)	Oceanography 408	(1)
Physics 308	(2)	Oceanography 409	(1)
Physics 309	(2)	Oceanography 449	(3)
Mathematics 316	(1½)	Other Oceanography	(2)
Oceanography 300	(1)	Non-Science elective	(3)
Oceanography 301	(1)	Science elective[2]	(1)
Oceanography 302	(1)		(16)
Oceanography 303	(1)		
Oceanography 401	(1)		
	(17)		

[1]One of Geology 105 (or Geophysics 120 and Geology 125), Biology 101 or 102, Computer Science 115 (or 101 and 118), Geography 101.

[2]Recommended: more Computer Science or Mathematics.

Combined Honours Geology/Oceanography

First Year		Second Year	
Chemistry 110 or 120	(3)	Geology 206	(1½)
English 100	(3)	Geology 210	(3)
Mathematics 120 and 121 or 100 and 101	(3)	Geology 226	(1½)
		Mathematics 105	(1½)
Physics 110 or 115 or 120	(3)	Two of Mathematics 220, 221, Computer Science 101	(3)
Geology 125	(1½)	Chemistry 208	(3)
Geophysics 120	(1½)	Electives[1]	(4½)
	(15)		(18)

Third Year		Fourth Year	
Oceanography 300	(1)	Oceanography 401 or 405	(1)
Oceanography 301	(1)	Oceanography 408	(1)
Oceanography 302	(1)	Oceanography 449	(3)
Geology 426	(1½)	Oceanography electives	(3)
Geology 304	(3)	Geology electives	(4½)
Geology 320	(3)	Arts elective	(3)
Geology 321	(1½)	Science elective	(1½)
Arts elective	(3)		(17)
Science elective	(1)		
	(16)		

[1]Recommended Biology 101 or 102 or Geophysics 221.

APPENDIX 'B'

FACULTY OF SCIENCE

Oceanography

New programs (continued)

Combined Honours Geophysics/Oceanography

First Year		Second Year	
Chemistry 110 or 120	(3)	Computer Science 101	(1½)
English 100	(3)	Geology 256	(1½)
Mathematics 120 and 121 or 100 and 101	(3)	Geology 210	(3)
Physics 110 or 115 or 120	(3)	Mathematics 200	(1½)
Geology 125	(1½)	Mathematics 220	(1½)
Geophysics 120	(1½)	Mathematics 221	(1½)
	(15)	Mathematics 315	(1½)
		Physics 201	(1½)
		Physics 209	(1½)
		Arts elective	(3)
			(18)

Third Year		Fourth Year	
Oceanography 300	(1)	Oceanography 401	(1)
Oceanography 301	(1)	Oceanography 408	(1)
Oceanography 302	(1)	One of Oceanography 409 410, 413	(1)
Physics 303	(2)	Oceanography 449	(3)
Physics 309	(2)	Geophysics 420	(1½)
Mathematics 201	(1½)	Geophysics 426	(1½)
Mathematics 316 (or Physics 312)	(1½)	Electives[1]	(6½)
Geophysics 320	(1½)		(15½)
Geophysics 321	(1½)		
Geophysics 322	(1½)		
Arts elective	(3)		
	(17½)		

[1] To be taken from the following courses: 400 level Oceanography, Geophysics, and Physics; Mathematics 300; Physics 304, 306; Geology 304, 315.

Physics

New course	PHYS 305 (1½)	Introduction to Biophysics
Deletion	PHYS 404	

Physiology

New course	PHYL 426 (1½)	Physiological Basis of Central Nervous System Function

APPENDIX 'B'

FACULTY OF SCIENCE

Physiology (continued)

Program change — Honours in Physiology

Change third year

From: Chemistry 305 (3)
Arts or Science elective (4½)

To: Arts elective (3)
Electives (4½)

Change fourth year

From: Electives (4½)

To: Anatomy 405 (1½)
Physiology 426 (1½)
Elective (1½)

Psychology

Changes — PSYC 366 - change in hours
PSYC 463 - change in prerequisite

Zoology

New courses — ZOOL 316 (1½) Introduction to Plankton Ecology
ZOOL 429 (1½) Comparative Neurobiology

Changes — ZOOL 303, 423 - change in hours and prerequisites
ZOOL 306 - change in title, description and hours
ZOOL 308 - change in title
ZOOL 406, 411 - change in description, hours and prerequisite
ZOOL 416 - change in prerequisite

Deletion — ZOOL 429 (1½) Physiology Laboratory B

Probability and Statistics courses

Calendar statement:

Listed below are the introductory courses in probability and statistics. Students may obtain credit for only one course in any column and may obtain at most a total of 3 units from all of these introductory courses. Therefore, a student obtaining credit for a 3 unit course in column three could not obtain additional credit for courses in the first two columns.

APPENDIX 'B'

Probability and Statistics courses (continued)

Probability	Statistics	Probability and Statistics
COMM 211 (1½)	ANTH 318 (1½)	COMM 318 (3)
MATH 205 (1½)	BIOL 300 (1½)	COMM 311 (3)
	COMM 212 (1½)	FRST 130 (3)
	COMM 418 (1½)	MECH 558 (3)
	EDUC 482 (1½)	POLI 309 (3)
	EDUC 483 (1½)	PSYC 316 (3)
	GEOG 374 (1½)	
	MATH 105 (1½)	
	MATH 203 (1½)	
	MATH 251 (1½)	
	NURS 320 (1½)	
	PHED 371 (1½)	
	PLNT 321 (1½)	
	SOCI 318 (1½)	

Students may obtain credit for at most one of the following courses:
FRST 430, PLNT 322, BIOL 301.