The third regular meeting of the Senate of the University of British Columbia for the Session 1964-65 was held on Wednesday, December 16, 1964, at 8:00 p.m., in the Board and Senate Room, Administration Building.

Present: President J. B. Macdonald (in the Chair), Chancellor Phyllis G. Ross, Mrs. H. F. Angus, Dr. K. F. Argue, Dr. C. S. Belshaw, Dr. A. E. Birney, Rev. J. Blewett, Mr. W. T. Brown, Mr. F. L. Burnham, Mr. K. P. Caple, Dr. J. D. Chapman, Dean I. McT. Cowan, Dean G. F. Curtis, Dean B. A. Eagles, Mr. H. Elder, Dr. J.F.K. English, Dr. J. G. Foulks, Dr. S. M. Friedman, Dean W. H. Gage, Dr. W. C. Gibson, Dr. H. B. Hawthorn, Dr. J. A. Jacobs, Dr. F. H. Johnson, Dr. J.E.A. Kania, Mr. J. S. Keate, Dr. H. L. Keenleyside, Dean S. W. Leung, Mr. S. L. Lipson, Dr. M. F. McGregor, Mrs. H. J. MacKay, Dr. K. C. Mann, Dr. G. W. Marquis, Dr. W. H. Mathews, Dean A. W. Matthews, Mr. D. F. Miller, Mr. F. A. Morrison, Dr. D. C. Murdoch, Dean D. M. Myers, Dean K. D. Naegele, The Honourable Mr. Justice N. T. Nemetz, Dr. J. M. Norris, Dean V. J. Okulitch, Dr. G. J. Parfitt, Mr. H. N. Parrott, Dr. A. J. Renney, Dr. W. Robbins, Dean N. V. Scarfe, Dr. R. F. Sharp, The Honourable James Sinclair, Dr. J.H.G. Smith, Dr. R. Stewart, Mr. B. Stuart-Stubbs, Mr. E.C.E. Todd, Dr. F. Turnbull, Mr. F. E. Walden, Dr. H. V. Warren, Dr. J. B. Warren, Acting-Dean R. W. Wellwood, Mr. P. H. White, Dr. S. H. Zbarsky and Mr. G. Selman.

Messages of regret for their inability to be present were received from Mr. R. M. Bibbs, Major H. C. Holmes, Rev. W. Nicholls, Mr. E. P. Nicol, The Honourable Mr. Justice D. R. Verchere and Mr. A. A. Webster.

Discussion of "Education in the Health Sciences"

In answer to a query, the Chairman stated that the Executive Committee of Senate had felt, since the Senate had already started discussion of the Report of the Committee on Academic Goals and since Dr. English had agreed to report to this meeting on the secondary school curriculum, that discussion of the programme of education in the health sciences should be deferred to the next regular meeting of Senate.

Minutes of the Previous Meetings

Dean Myers)
Dr. English) That the minutes of the second regular meeting of Senate for the Session 1964-65, held on October 21, 1964, and of the special meeting of Senate held on November 25, 1964, having been circulated, be taken as read and adopted.
Carried.

Recommendations of the Faculty of Science

Two recommendations of the Faculty of Science, initiated by the Department of Mathematics, had been deferred from the previous meeting to permit their consideration by the Faculty of Arts. This Faculty concurred in the

recommendations.

Dr. Stewart)
Dean Cowan) That Mathematics 120 be a prerequisite course for all "200" courses in Mathematics listed in the Faculty of Science Calendar, with the possible exception of Mathematics 201, 203, 205, 207, and 208; that those students who have completed Grade XIII Mathematics 101 (revised) should not normally be eligible to register in Mathematics 200, 202, 220, 221, but exceptions may be made with the consent of the Department.

That in view of the changes taking place in the British Columbia secondary school curriculum with respect to Mathematics, Physics and Chemistry, Senate take immediate steps to establish revised requirements for admission to the University from the British Columbia secondary school system, to become effective in 1967.

Carried.

Dean Okulitch assured the Senate that the Department of Mathematics at its discretion would admit to Mathematics 202 students who had completed Grade XIII Mathematics 101 (revised) and wished to follow this by a course in Calculus.

Recommendations from the Senate Executive Committee

Representation of British Columbia Teachers' Federation on Senate

On October 23, 1963, Senate had approved resolutions:

(1) That consideration of representation on Senate of the British Columbia Teachers' Federation be referred back to the Senate Executive Committee for submission to Senate at a later date;

(2) That no additional society or group or organization as defined in Section 23(i) of the Universities Act be asked to elect a member to the Senate.

With the approach of the end of the term on Senate of its representative appointed under the British Columbia University Act, the B. C. Teachers' Federation had submitted a brief requesting the continuation of its representation on Senate. The Senate Executive Committee, which had met with a delegation from the Federation, had recommended that Senate extend its resolution of October 23, 1963 (2 above) to include the British Columbia Teachers' Federation, on the basis that the position of the Federation did not differ significantly from that of other professional groups, and that liaison between teachers and Faculty members with similar academic interests was already provided in various ways.

Dean Gage)
Dr. Chapman) That the recommendation of the Senate Executive Committee be approved.

While not opposing the present recommendation, Dr. Sharp expressed his opinion that it was an advantage to the University Senate, and the University as a whole, to have a representative of the secondary school principals on the Senate, since the University students came from the secondary schools. He felt also it was a means of indicating to the principals of the secondary schools the interest taken by the University in their problems. He hoped that Senate might consider this point before the term on Senate of Mr. Burnham expired in May, 1966.

Mrs. Angus supported this view.

Mr. Parrott assured Senate that, whatever the decision, the Federation would continue to work closely with the University. As representative of the Federation in recent years, he had become aware of the interest of the teachers of British Columbia in the business of the University.

Mr. Burnham believed that the position of the B. C. Teachers' Federation differed significantly from that of other professional groups inasmuch as the students in the Faculty of Education (at present some 2200) were receiving part of their professional training in the schools.

Dr. Belshaw stated that there had been a general feeling in the Executive Committee that liaison with the teachers as a whole should be improved at various levels within the University. Dr. Norris added that the Senate was the academic body of the University, and that liaison between professional groups and the University should be achieved in other ways.

Dr. H. V. Warren, Dr. Johnson and Dr. Gibson all expressed their opposition to the recommendation of the Executive Committee.

Dean Scarfe pointed out that the secondary schools and the University were very much concerned with each other's curricula.

Following suggestions that the secondary school principals might be excluded from the present recommendation

of the Executive Committee, Dean Gage said he understood that of necessity the appointment of a representative of the High School Principals and Assistants was handled through the B. C. Teachers' Federation. Mr. Parrott stated that the Federation included many sub-groups. Among these was the association of B. C. Principals and Vice-Principals, which could elect a representative to Senate if Senate so wished.

The President pointed out that, on the basis of the Senate resolution of October 23, 1963, the High School Principals were not entitled to elect a member to the Senate after the expiration of the term of the representative appointed under the British Columbia University Act.

Dr. Friedman)
Mr. Todd) That the motion be amended to deal only with the question of representation on Senate of the British Columbia Teachers' Federation as such, and that the question of representation of the High School Principals and Assistants be referred back to the Senate Executive Committee for separate consideration.
Carried.

The motion approving the recommendation of the Executive Committee, as amended, was Carried.

New Format of Honorary Degree Parchment

The printers of the honorary degree diplomas had informed the University that the equipment needed for this purpose was no longer usable. Since these large diplomas

presented a number of other problems in handling, and probably in storage by their recipients, the Executive Committee recommended approval of a proposal from the Honorary Degrees Committee to reduce the size of the parchment for the honorary degree and to present it, together with the citation, in a folder.

Dr. Kania)
Dean Myers) That this recommendation of the Senate Executive Committee be approved.

Carried.

Mr. Elder suggested that attention should be given to the design of the diploma, with a view to improving its appearance.

Granting of Emeritus Status

The Executive Committee recommended that Miss Anne Smith, who had retired from the University Library, should be granted the status of Assistant Librarian Emeritus.

Dean Scarfe)
Mr. Elder) That this recommendation of the Senate Executive Committee be approved.

Carried.

Elimination of Autumn Congregation

The Committee of Deans and the Executive Committee recommended that the Autumn Congregation be eliminated, since it interfered with the academic programme in the First Term which was already short. Many of the recipients of degrees at this time were students completing graduate

degrees during the summer, and leaving the Vancouver area in September for employment or further study elsewhere.

If the recommendation were approved, the list of candidates qualifying for degrees during the summer would continue to be presented to Senate in October, so that appropriate notification could be made on the students' academic records.

Mr. Justice Nemetz inquired whether a degree could be formally recognized before it was conferred by the Chancellor. Moreover, he felt it extremely unlikely that members of Faculty would attend Congregation ceremonies on three days in the Spring.

The Registrar stated that approval by Senate for the granting of the degree was recognized by other institutions or employers, on the understanding that the formal conferring of the degree would take place at the next Congregation ceremony. If the present procedure for conferring degrees was continued, it would be necessary to hold Congregations on three days, or to lengthen each of two ceremonies to three hours. A possible alternative would be to follow the practice of the University of Toronto, and hold separate ceremonies for individual Faculties.

Dr. Murdoch suggested that the practice of having each graduand in attendance cross the platform might be discontinued.

Members of Senate inquired about the wishes of the students with respect to Autumn Congregation. The

Registrar replied that about half of those receiving degrees attended the Autumn Congregations. The majority of the graduates in the autumn were teachers, and the Faculty of Education had agreed it would be desirable to eliminate the Autumn Congregation. Dean Scarfe commented that all British Columbia school boards recognized the University transcript indicating completion of work, without awaiting the formal conferring of the degree.

Dr. McGregor pointed out that the First Term had many interruptions, in addition to being short. Dr. Stewart added that laboratory schedules in particular were seriously affected by the cancellation of one afternoon's work.

Dean Scarfe)
Dr. Stewart) That the proposal of the Committee of Deans and the Executive Committee to eliminate the Autumn Congregation be approved.

Carried.

The School of Nursing, which had for some years scheduled a period of field work in May, June and early July, was considering a re-arrangement of its programme so that its graduands would not be required to wait until the following spring to receive their degrees.

Dr. Murdoch)
Mr. Sinclair) That the Chairman be asked to appoint a committee of Senate to consider ways of shortening the Congregation ceremony so that the annual ceremonies for the conferring of degrees would require not more than two afternoons, and preferably one.

Carried.

Dr. McGregor and Dr. H. V. Warren pointed out that parents, relatives and friends from all parts of the Province attended Congregation ceremonies to see particular individuals receive their degrees. Public relations would suffer if degrees were presented en bloc.

Academic Year 1965-66, Mid-Term Break and Congregations

The Executive Committee recommended that approval be given to a mid-term break, February 17, 18, 19, 1966, and to the holding of the Spring Congregations 1966 on each of June 1, 2, 3. In view of the last motion, the Chairman suggested that this be modified to the holding of the 1966 Spring Congregations in early June.

If a mid-term break were to be approved for 1966, it would be desirable to announce it in the Calendar which would be in press before the success of the 1965 mid-term break was determined. Advance scheduling would also permit an extension of the Second Term to compensate for the time involved in the break.

The mid-term break approved for 1965 had applied only to "those Faculties in which, in the opinion of the Dean, the recess would not adversely affect the academic programme". Most, but not all, Faculties were cancelling their lectures and laboratories for the three-day period.

Dean Curtis asked for verification that the University Library would be open during the mid-term break.

The Chairman confirmed that, as stated in the minutes of the previous regular meeting, the break in 1965 applied only to such Faculties as wished to adopt it. The University administration, including the Library, would function as usual.

Dean Scarfe)
Dr. Jacobs) That a mid-term break be approved for February 17, 18, 19, 1966, and the 1966 Spring Congregations be held in early June of that year.

Carried.

Re-wording of Admission Requirements

The Executive Committee recommended a re-wording of the admission requirements as stated on page A22 of the 1964-65 Calendar, to clarify their meaning.

Dean Gage)
Dr. English) That the re-wording of the Calendar statement on admission requirements, as included in the recommendations of the Executive Committee, be approved.

Carried.

Faculty Membership

Senate at its meeting on October 21, 1964, had approved recommendations from the Faculty of Applied Science and the Faculty of Arts with respect to membership in their Faculties of persons other than those specifically approved in the Senate resolution of December 18, 1963, defining Faculty membership. The Senate Executive Committee now recommended approval of the following proposals from the Faculties of Dentistry, Forestry and Pharmacy for membership

in those Faculties under section (vii) of the aforementioned Senate resolution:

Dentistry

(a) Full-time Instructors (I and II) whose salaries, either in part or in whole, are charged to the Faculty of Dentistry budget, or full-time Instructors (I and II), Assistant Professors, Associate Professors and Professors who, in the opinion of the Faculty, provide a significant amount of teaching to students registered in the Faculty;

(b) Representatives elected by and from members of the teaching staff who hold appointments for less than full time, and whose salaries are charged entirely to the budget of the Faculty. The representation shall be in the ratio of one representative to ten part time staff;

(c) One member from each of the following Departments in the Faculty of Medicine, chosen annually by that Department, if such Department is not already represented under (a) or (b) above: Anatomy, Biochemistry, Pathology, Pharmacology, Physiology, Preventive Medicine, Medicine, Surgery;

(d) The Dean of the Faculty of Medicine, or his designated representative, ex officio;

(e) The Librarian of the Woodward Bio-medical Library, ex officio;

(f) One member of the Faculty of Arts, chosen annually by that Faculty;

(g) One member of the Faculty of Science, chosen annually by that Faculty;

(h) Such other persons, not exceeding three in number, as may be appointed from time to time for a specified term by the Faculty on the nomination of the Dean.

Forestry

(a) The Professor of Forest Entomology;

(b) The Professor of Forest Pathology;

(c) Two members of the Faculty of Agriculture chosen annually by the Dean of that Faculty;

(d) One member of the Faculty of Arts chosen annually by the Dean of that Faculty;

(e) One member of the Department of Biology and Botany chosen annually by the Head of that Department;

(f) One member of the Department of Chemistry chosen annually by the Head of that Department;

(g) One member of the Faculty of Commerce and Business Administration chosen annually by the Dean of that Faculty;

(h) One member of the Department of Civil Engineering chosen annually by the Head of that Department;

(i) One member of the Department of Mechanical Engineering chosen annually by the Head of that Department;

(j) One member of the Department of Zoology chosen annually by the Head of that Department;

(k) All full-time Instructors and Lecturers engaged in teaching in Forestry and provided for in the budget of the Faculty of Forestry;

(l) All Professors, Associate Professors and Assistant Professors holding emeritus appointments, and all part-time Professors, Associate Professors and Assistant Professors holding honorary appointments, in the Faculty of Forestry;

(m) Such other persons, not exceeding four in number, as may be appointed from time to time for a specified term by the Faculty on the nomination of the Dean.

Pharmacy

(a) Full-time Instructors whose salaries are attached to the budget of the Faculty of Pharmacy;

(b) A representative of each of the Departments in the Faculty of Science providing instruction in a course required in the Pharmacy curriculum;

(c) A representative of the Department of English and/or a representative-at-large of the Faculty of Arts.

With the replacement of the Department of Mining and Geological Engineering by a Department of Mineral Engineering, the Faculty of Applied Science had been deprived of the staff in Geological Engineering, who had been transferred to the Department of Geology in the Faculty of Science. The Faculty of Applied Science had accordingly recommended that its membership be increased by the addition of three members of the Department of Geology chosen annually by that Department.

Dean Gage)
Dean Leung) That the proposals of the Faculties of Dentistry, Forestry and Pharmacy relating to Faculty membership, and the proposal of the Faculty of Applied Science to increase its membership, be approved.
Carried.

Curriculum Changes and Calendar Amendments, 1965-66

Submissions of the Faculties and Schools with respect to new courses, changes in courses and curricula, and other Calendar amendments for 1965-66 had been circulated. The Executive Committee recommended approval of these submissions.

The Chairman stated that, at the meeting of the Executive Committee, Dean Gage had volunteered to devise an alternative form for presentation of Calendar material, to make it more concise and more understandable to those not immediately concerned with it.

Dean Cowan had received on December 15th from the Department of Mineral Engineering a request for approval of

three new graduate courses to be included in the 1965-66 Calendar. If time permitted, he would like the Curriculum Committee of the Faculty of Graduate Studies, and the Faculty itself, to review these courses before they were presented for approval of Senate. The Registrar assured him that approval by Senate in February would permit inclusion in the Calendar.

Dean Gage)
Dr. Jacobs) That approval be given to the curriculum changes and additions and other Calendar material as presented by the Faculties, subject to the approval of the Board of Governors where necessary.
Carried.

New courses, discontinued courses, and major changes in curriculum are recorded in an appendix to these minutes.

Quote (Appendix I) (see pages 3482 - 3488)

Prizes, Scholarships and Bursaries

The Senate Executive Committee recommended approval of the following new awards, subject to the approval of the Board of Governors:

Quote (Appendix II) (see pages 3489 - 3491)

Dean Gage)
Dr. English) That these new awards be accepted, subject to the approval of the Board of Governors, and that, where appropriate, letters of thanks be sent to the donors.
Carried.

Report of the Librarian, 1963-64

The report of the University Librarian to Senate for the year 1963-64 had been circulated. In presenting the recommendation of the Executive Committee, Dean Gage added that the report was very readable, and that the Librarian and the Library Committee were to be congratulated on it.

Dean Gage)
Dr. Gibson) That the report of the Librarian be received for information.
Carried.

Report of the Committee on Recreation, Athletics and Physical Education

The Committee on Recreation, Athletics and Physical Education, and the Executive Committee, recommended:

(1) That Senate rescind the regulation requiring all entering students in the First and Second Year to take one year of Physical Education;

(2) That Senate recognize the following as desirable objectives:

(a) A physical fitness evaluation test should be conducted by the School of Physical Education and Recreation at the time of first registration of each student. At the same time the student should be informed of the facilities available for,and the opportunities for participation in, a physical activities programme. Those students who the test indicates could profit most from such a programme should be advised accordingly.

(b) A voluntary corrective programme should be arranged for students referred to the School of Physical Education and Recreation by the University Health Service. This programme should prescribe and appraise exercises for postural defects, injuries, etc.

(c) A strong and well-organized intramural programme should be provided. This programme should have a headquarters office, with office staff, and members of the Physical Education staff should be specifically assigned to organize and supervise men's and women's intramurals.

(d) Continued support and encouragement should be extended to the extramural programme as required, by the provision of additional coaching and facilities, in co-operation with the Men's and Women's Athletic Committees. Such development should emphasize minor sports with a view to encouraging maximum participation.

(e) Assistance should be extended to the programmes of those Clubs concerned with physical recreation with a view to encouraging students to participate in activities of special interest to them. As in the case of the intramurals, greater continuity might be achieved by staff assistance in organizing club activities (faculty advisers).

(f) A voluntary activities programme for students in all years should be stimulated and encouraged by:

(i) Scheduling classes in which students would be given the opportunity to acquire skill, particularly in those games for which adequate facilities can be provided (examples - badminton, tennis, bowling, curling, etc.)

(ii) Scheduling certain free hours in the different facilities when students can exercise on a casual basis, or by booking time in advance.

The report of the Committee outlined the problems arising from a University requirement of physical education when the facilities were inadequate to meet the requirements. The Faculty of Arts and Science had recommended in November, 1961, "that the requirement of two years' compulsory Physical Education courses in programmes leading to the degrees of B.A. and B.Sc. be abolished." Senate in 1962, after studying

that recommendation, had reduced the physical education requirement from two years to one year. Dean Matthews read a section from the report of his Committee to Senate at that time, stressing the mental health aspect of an activities and fitness programme, and the value of a continuing interest in an activity which might result from the compulsory programme.

The present report of the Committee pointed out that elimination of the compulsory physical education programme would probably not significantly decrease the pressure on existing facilities for physical education and recreation. Funds had been contributed to the cost of the Women's Gymnasium and the War Memorial Gymnasium on the understanding that these facilities were being provided for recreational use by students, but very little time was now available for intramural or casual use. For information of Senate, the report stated that the Committee had recommended to the Facilities Committee that gymnasium teaching stations and ancillary classrooms for the Faculty of Education be assigned a high priority.

Dr. Chapman)
Dr. Gibson) That the report of the Committee on Recreation, Athletics and Physical Education be accepted, and that approval be given to the recommendation that the Senate regulation on "the required physical education activity" be rescinded, and to the objectives as stated.

Carried.

Committee on Honorary Degrees

The first two recommendations of the Committee on Honorary Degrees for the Spring Congregations, 1965, were that the degree of LL.D. be conferred on Professor John Kenneth Galbraith, Warburg Professor of Economics at Harvard University, and that the degree of D.Sc. be conferred on Mr. Gerard Piel, Editor of the Scientific American and Fellow of the American Academy of Arts and Sciences. Senate in May, 1964, had approved Professor Galbraith and Mr. Piel as alternate honorary degree recipients in October, 1964, if Professor Hugh Trevor-Roper had been unable to accept a degree at that time.

Dean Myers presented the following additional recommendations of the Committee:

Mr. George Cunningham	LL.D.
Miss Dorothy Somerset	D.Litt.
Professor Frank Forward	D.Sc.
Professor Emeritus Harry T. Logan	LL.D.
Dean Frank Scott, retiring Dean of Law, McGill University	LL.D.

The Committee recommended as alternate, if necessary, Mr. Max Ferguson, the leading Canadian satirist ("Rawhide"), as recipient of the degree of LL.D.

Dean Myers)
Dean Eagles) That honorary degrees be conferred on the seven candidates recommended if they are able to be present at the Spring Congregations in 1965, and that the Committee on Honorary Degrees be authorized to offer an honorary degree to Mr. Max Ferguson if one or more of the other candidates is unable to be present at that time.

Carried.

Curriculum for Senior Secondary Schools

The Chairman referred to the changes in the secondary school curriculum which would be affecting the preparation of students reaching the University in 1967. Dr. English had consented to summarize these changes for the information of Senate.

An outline of the curriculum re-organization and a chart indicating the tentative curriculum in the various programmes, were circulated. The academic and technical programmes in the senior secondary schools would prepare students for universities, colleges, technological institutes and other vocations or types of training requiring College Entrance standard. Students not qualifying in Grade X for admittance to these programmes might choose from commercial, industrial, community services, visual and performing arts, or a number of special programmes for particular occupations.

English to Grade XII, Social Studies to Grade XI, and Guidance and Physical and Health Education to Grade XI would be required in all programmes, occupying about 30% of the student's time in these two grades. Each programme had in addition a number of specified courses or types of course, occupying about 40% of the student's time, and a few "free electives" making up the remaining 30%. Students would be encouraged to select these electives from other programmes in order to broaden their education.

Dr. English stated that in October, 1964, there were nearly 400,000 pupils in the elementary and secondary

schools of British Columbia. The Department of Education expected that by 1971 this would grow to about 460,000, and by 1975 to 525,000. Operating costs for the public schools, excluding universities, had increased from $36,000,000. in 1952 to $128,000,000. in 1963, and were projected at $182,000,000. in 1970 and $265,000,000. in 1980. In addition, the enrolment in institutions of higher education was expected to increase considerably.

The (Chant) Royal Commission Report on Higher Education was one of the principal factors in the re-organization of school curricula, and had indicated the general direction of development, but in all probability some type of re-organization would have been undertaken in any event. In the senior secondary schools, a programme system would replace the system of "majors". The foreign language requirement for students entering the University would be increased from the present two years to a minimum of three. Greater concentration in the subjects of specialization would be required of students on the academic and technical programmes. Admission to the Grade XI programmes would be based on a Grade X examination, set and conducted by the local schools but possibly approved in advance by the Department. The new Mathematics 11, compulsory in the academic and technical programmes, would be approximately equivalent to the present Mathematics 91 of Grade XII.

Transfer between programmes would be possible if students completed the prerequisites and met the required standards. At present, about 60% of the students in senior secondary schools were on the University programme; the Department hoped that this would be reduced to about 40% in the new academic and technical programmes.

Grade XIII would probably be maintained in some form, possibly in affiliation with community or junior colleges in adjoining areas.

Dr. English emphasized the importance of sound training for teachers, particularly those in the secondary schools, in order to produce well qualified students for the universities and other institutions of higher learning.

Dr. English referred to the proposed revision of requirements for admission to the University. He asked whether, with the permission of the President, he might meet in the near future with the Deans of the Faculties and the Heads of Departments principally concerned in this revision, for a thorough discussion of the new senior secondary school curriculum, of the academic preparation of students entering the University in 1967 and thereafter, and of the effect on the school curriculum of possible admission requirements of the Faculties.

The secondary schools were already in a transition period in some aspects of their programme, and students entering the University in 1965 and 1966 might have a slightly different background from their predecessors in

certain subjects. Dean Gage reminded Senate that transition periods were frequently longer than anticipated. He urged Senate not to establish too rapidly specific requirements for the different Faculties, in order that the requirements when established would be realistic.

Dr. Marquis, Dr. Hawthorn and Dr. Birney all cautioned that students anticipating professional careers in the visual and performing arts should enter these from the academic and technical programmes, rather than the visual and performing arts programme which would not meet the present professional standards.

Mr. Miller inquired whether all senior secondary schools in British Columbia would have the staff and facilities to offer all the programmes other than academic and technical. Dr. English replied that about forty schools would be able to do so. At present nearly every secondary school in the Province offered a commercial programme. Schools with at least 400 pupils in Grades XI and XII, offering four programmes (academic-technical, commercial, industrial, and one other) could qualify for Federal grants towards capital and operating costs.

Dr. Sharp commented that, while only about 40% of the students in the secondary schools might enter the academic and technical programmes to qualify for university and college training, the remaining 60% of the students were also entitled to further education. A regional college could offer the first two years of university to those

eligible, and at the same time provide two years of advanced training for the others completing secondary school and wishing further education.

In thanking Dr. English for his most interesting presentation, the Chairman commented that the University's estimate of students in British Columbia proceeding to higher education in September, 1965, from Grade XII was about 10,600; and its estimate of total enrolment in higher education in 1965-66 was 26,500. In spite of the opening of Simon Fraser University, he anticipated that 17,500 students would enrol at the University of British Columbia in September, 1965. This would be an increase of 2,000 students over present enrolment.

Termination of Representation of the British Columbia Teachers' Federation

Mr. Parrott, whose term on Senate would end this month, once more assured the Senate that the British Columbia Teachers' Federation would continue to co-operate with the University as it had done in the past.

Discussion of Report of the Committee on Academic Goals

In view of the late hour, it was agreed that further discussion of the report of the Committee on Academic Goals should be deferred to the next regular meeting of Senate.

University Teaching Hospital

For information of Senate, the Chairman reported that working drawings were now under way for the University Teaching Hospital. Private financing of about one quarter of the capital cost, estimated at $18,000,000. total, had been assured largely through the generosity of Mr. P. A. Woodward, with other grants from important international organizations and foundations. The Federal Government had taken exceptional action in providing about one quarter of the cost on the basis that this was a pilot programme for the whole of Canada. In the last few weeks, the Provincial Government had classified the project as a hospital within the meaning of the Hospital Insurance Act, making it eligible for capital grants for fifty percent of the cost of teaching, research and service aspects.

Operating costs would be provided through the British Columbia Hospital Insurance Service, as for any other provincial hospital, and would be completely unrelated to the University grants from the Department of Education.

The meeting adjourned at 10:15 p.m.

Secretary.

Chairman.

Appendix I - New Courses and Changes in Courses and Curricula
(see p. 3471)

FACULTY OF AGRICULTURE

New course:

Plant Protection 312 ($1\frac{1}{2}$) - Pesticides

Changes in courses:

Agronomy 305 - title changed
Dairying 407, 413 - title and description changed
Horticulture 301 - title and description changed
Plant Pathology 309 - re-named Plant Protection 309
Plant Pathology 409($1\frac{1}{2}$) and 410($1\frac{1}{2}$) consolidated to become Plant Protection 409(3) with combined title
Agronomy 425, Horticulture 425, Plant Pathology 425 - re-named Plant Science 425
Agronomy 430, Horticulture 430, Plant Pathology 430 - re-named Plant Science 430
Plant Science 300, 322, 450 - title and/or description changed
Plant Science 308 - re-named Plant Protection 308
Plant Science 441(2) and 442(2) consolidated to become Plant Science 444(3) - Physiology of Crops
Soil Science 203, 312 - description changed

Courses withdrawn:

Horticulture 300, 420
Plant Science 440, 443

FACULTY OF APPLIED SCIENCE

Curriculum changes:

Changes in curriculum in Civil, Electrical, Geological, Mechanical and Mining Engineering

New course:

Electrical Engineering 253 - Introduction to Solid State Electronics

Changes in courses:

Architecture 451 - revised to include content of Architecture 452 which was withdrawn in September, 1964
Nursing 222, 224 consolidated to become Nursing 223(3) - Maternal-Child Health Nursing
Nursing 220, 223, 226 - descriptions revised

Course withdrawn:

Nursing 456

FACULTY OF ARTS

Curriculum changes:

Requirements for major and/or honours in Asian Studies, International Relations, Political Science and Religious Studies changed or established.

New courses:

Asian Studies 315(3) - Civilizations of Southern Asia
Asian Studies 403(3) - History of Japanese Literature
Asian Studies 417(3) - Chinese Political Thought and Institutions (to be offered in 1965-66 only)
Asian Studies 422(3) - Modern Japan
Asian Studies 423(3) - Modern Chinese History since 1840
English 354(3) - A Survey of Middle English Literature
English 390(3) - A Survey of English Literature of the 19th Century
English 425(3) - British Drama, 1880 to the Present
English 442(3) - Commonwealth Literature
Geography 312(3) - Physiographic Hydrology
Geography 414(3) - Regional Analysis - Industrial
Geography 415(3) - Regional Analysis - Urban
Geography 420(3) - Geography of the United States
Philosophy 330(3-6) - Honours Tutorial
Political Science 409(3) - Comparative Foreign Policies
Political Science 410(3) - International Violence and its Control
Psychology 311(3) - Individual Differences
Psychology 405(3) - Social Learning
Religious Studies 407(3) - Archaeology and Mythology of the Ancient Near East
Religious Studies 421(3-6) - Honours Tutorial
Religious Studies 449(3-6) - Graduating Essay for Honours Students
Russian 405(3) - Tolstoj and Dostoevskij
Sociology 406(3) - Research Methods
Sociology 410(3) - Small Groups

Changes in courses:

Asian Studies 200, 201 - hours increased to (5-2;5-2) and unit value increased from 3 to $4\frac{1}{2}$ units each
Asian Studies 205, 320, 330, 404 - descriptions changed
English 332 - title and description changed
Fine Arts 128 - re-numbered 228
Geography 302 - re-numbered 212; title changed
Geography 305, 310 - titles and descriptions changed

International Studies 100 - re-numbered History 206
International Studies 200 - re-numbered Pol. Sci. 204
International Studies 300 - re-numbered History 431
International Studies 301 - re-numbered Pol. Sci. 308
International Studies 400 - re-numbered History 332
International Studies 405 - re-numbered History 432
Psychology 200, 301, 308, 409 - descriptions changed
Psychology 300, 405 - re-numbered 415, 310
Religious Studies 409, 412 - title and/or description changed

Courses withdrawn:

Asian Studies 400 - transferred to graduate course
International Studies 410, 449
Sociology 440

FACULTY OF COMMERCE AND BUSINESS ADMINISTRATION

Curriculum changes:

No new enrolments accepted in combined programme for C.A. and B.Com. during the term 1965-66
Changes in curriculum in Accounting, Marketing, Finance, Transportation and Industrial Relations options

Change in course:

Commerce 307 divided into:
307($1\frac{1}{2}$) - Urban Land Markets
309($1\frac{1}{2}$) - Urban Land Investment

FACULTY OF DENTISTRY

Curriculum for Second Year established.
Preventive Medicine 400 added to curriculum of First Year.

Correction in course numbering:

Restorative Dentistry 411 re-numbered 422.

FACULTY OF EDUCATION

Curriculum changes:

Major in Guidance established in Secondary Division.
Major in Librarianship in Secondary Division revised.
Provision made for students holding a B.Ed. (Elementary) degree to fulfil requirements for the P.B. certificate.

New course:

Education 490(3) - Book Selection and Evaluation for the Secondary School

Changes in courses:

Education 390, 490 - re-numbered 492, 390

FACULTY OF FORESTRY

Institution of an "adjudicated pass"

New course:

Forestry 290(1) - Field Work in Logging, Silvics, and Utilization

Changes in courses:

Botany 318, 418 - transferred to Faculty of Forestry and re-named Forestry 318, 418, the latter including the content of Botany 518

Course withdrawn:

Forestry 300

FACULTY OF GRADUATE STUDIES

Institution of a Ph.D. programme in Mechanical Engineering.
Revision of the requirements for the Master of Laws programme.

New courses:

Agric. Economics 504(3) - Extension Planning and Evaluation
Agriculture 500(1-3) - Food Science Graduate Seminar
Agriculture 530(1-3) - Food Science Graduate Directed Studies
Agriculture 549(5-6) - Food Science Master's Thesis
Asian Studies 509(3) - Problems of Modernization in Eastern and Southern Asia
Asian Studies 511(3) - Readings in Japanese Literature
Asian Studies 512, 513, 514 (3 each) - Seminars
Biology 540(3) - Advanced Cytology (to be given in 1965-66 and alternate years)
Botany 513(2) - Cytology of Marine Algae
Botany 517(3) - Marine Mycology (to be given in 1965-66 and alternate years)
Botany 520(3) - Phytogeography

Botany 530(3) - Advanced Plant Physiology I
(to be given in 1965-66 and alternate years)
Botany 531(3) - Advanced Plant Physiology II
(to be given in 1966-67 and alternate years)
Dairying 503(3) - Advanced Laboratory Methods
Fine Arts 531(1-3) - Directed Study in the Visual Arts
Fine Arts 541(1-3) - Special Advanced Courses
Geography 517($1\frac{1}{2}$-3) - Problems in Political Geography
Mechanical Engineering 550(1-3) - Special Advanced Courses
Mechanical Engineering 570(3) - Space Dynamics II
Mechanical Engineering 699 - Ph.D. Thesis
Physical Education 565($1\frac{1}{2}$) - Analysis of Physical Activity
Physical Education 584($1\frac{1}{2}$) - Motor Skills and Physical Efficiency of Young Children
Physics 544(1) - Magnetic Resonance Seminar
Physics 545(1) - Theoretical Physics Seminar
Plant Science 649 - Ph.D. Thesis
Political Science 509(3) - International Organization
Psychiatry 500(1) - The History of Psychiatry
Psychiatry 503(2) - Psychotherapy I
Psychiatry 504(1) - Drugs and Somatic Treatments in Psychiatry
Psychiatry 506(1) - The Province and Functions of Psychiatry
Psychiatry 507(2) - Psychotherapy II
Psychiatry 508(1) - Group Therapy and Milieu Therapy
Psychiatry 509(1) - Theories of Etiology
Psychiatry 531(1) - Child Psychiatry
Psychiatry 540(1) - Psychological Measurement
Psychiatry 550(1-3) - Directed Studies
Psychology 543(3) - Principles of Psychotherapy
Psychology 544(3) - Patterns of Child Rearing
Psychology 545(3) - Advanced Statistics I
Psychology 546(1-3) - Psychological Seminar
Psychology 547(1-3) - Reading and Conference
Psychology 548(1) - Departmental Seminar
Russian 518(3) - Two Centuries of the Russian Theatre (1756-1956)
Slavonic Studies 541(3) - Selected Problems of Soviet Economic Development
Sociology 501, 502, 511, 512, 521, 522, 531, 532 (1-3 each) - Seminars
Sociology 533(1-3) - Directed Studies
Sociology 540(1) - Graduate Research Seminar
Theatre 520(3) - Advanced Play Direction and Production

Corrections in course numbering:

Education 589, Clinical Practicum - re-numbered Education 561, Laboratory Practicum
Mechanical Engineering 583 - re-numbered 582

Changes in courses:

Anthropology 500 to 532 - unit value changed from 2 units each to a variable 1-3 units each
Biology 549 - unit value changed to 3-6
Botany 549 - unit value changed to 3-6
Chemistry 523 - unit value changed from 2 to 1
Chemistry 510 - re-named Oceanography 502
Civil Engineering - graduate courses re-numbered and re-arranged
Mech. Engineering 562 divided into:
562(1) - Introduction to Continuum Mechanics
568(1) - Theory of Plasticity
Mech. Engineering 564 - unit value changed from 2 to 3
Mech. Engineering 565 divided into:
565(2) - Advanced Mechanical Vibrations
569(2) - Non-Linear Vibration
Pharmacy 501 - unit value changed from 3 to 1-3
Physics 521 - unit value changed from 1 to 2
Physics 536 - transferred to undergraduate level
Plant Pathology 509 - re-named Plant Protection 509
Plant Science 508 - re-named Plant Protection 508
Plant Science 547 - re-named Horticulture 501
Political Science 549 - unit value changed to 3-6
Psychiatry 500 to 506, 510, 520, 521 - re-numbered and descriptions changed
Soil Science 515 divided into:
504($1\frac{1}{2}$-3) - Advanced Soil Chemistry
513($1\frac{1}{2}$-3) - Advanced Soil Physics

Courses withdrawn:

Agronomy 530, 549
Biology 513, 530, 531, 548
Botany 503, 516, 548
Horticulture 530, 549
International Studies 500, 525, 549
Physics 500
Plant Pathology 530, 549
Psychiatry 540
Sociology 501, 502, 503, 510, 520, 521, 522

FACULTY OF PHARMACY

Changes in regulations concerning supplemental examinations.

Course withdrawn:

Pharmacy 418

FACULTY OF SCIENCE

Curriculum changes:

Requirements for major and/or honours in Biology, Botany, Geophysics and Physics revised; Combined Honours programme in Biology and Chemistry instituted.

New courses:

Biology 330(3) - Cell Physiology
Botany 302(3) - Morphology and Taxonomy of Seed Plants
Botany 303(3) - Biology of Micro-organisms
Botany 304(3) - Morphology and Taxonomy of Bryophytes and Lower Vascular Plants
Botany 305(3) - Biology of Algae
Botany 331($1\frac{1}{2}$) - Plant Genetics
Botany 402($1\frac{1}{2}$) - Plant Anatomy
Chemistry 230(3) - Organic Chemistry
Chemistry 305(3) - Physical Chemistry for Biologists
Computer Science 300(3) - Advanced Programming and Data Processing
Geophysics 449(3) - Directed Research and Thesis
Mathematics 323(3) - Advanced Calculus for Science Students
Mathematics 409(3) - Elementary Topology
Physics 306(2) - Theoretical Mechanics
Physics 315(3) - Thermodynamics and Statistical Theory of Matter
Physics 404(3) - Mathematical Physics
Physics 415(3) - Thermodynamics and Statistical Mechanics
Physics 441(1) - Introductory Meteorology

Changes in courses:

Biology 332 and 333 - combined and revised to form: Biology 334($1\frac{1}{2}$) - Fundamental Genetics
Biology 340 - unit value decreased from 2 to $1\frac{1}{2}$
Mathematics 207(1) - changed to Computer Science 200($1\frac{1}{2}$)
Mathematics 208(1) - changed to Computer Science 201($1\frac{1}{2}$), and title changed

Courses withdrawn:

Biology 430, 437, 448
Botany 205, 206, 315, 318, 342, 404, 411, 412, 413, 418, 430, 431, 448
Chemistry 210, 300
Physics 304
Physics 401, 403 and 406 (Honours sections)

Appendix II - New Awards
(see p. 3471)

The Monsanto Canada Limited Scholarship in Chemical Engineering

A scholarship of $750.00, gift of Monsanto Canada Limited, will be awarded annually to a student in Chemical Engineering who has completed the Third Year and is proceeding to the Final Undergraduate Year. The award will be made on the recommendation of the Head of the Department.

The Norris-Mebius Bursary Fund

This fund, the gift of Mrs. Ann Norris Niemen, honours the memory of her mother, Mary Norris and her father, Joshua Norris (a resident of Nanaimo for over fifty years), and pays tribute to their indomitable courage and sterling qualities of character. It is also a memorial to her teacher, Lucy Mebius, who taught in Nanaimo for many years at Quennel School, and who, through her generosity and personal interest, encouraged and inspired her students. The annual income provides bursaries for male graduates of British Columbia secondary schools who are residing in the Province. These bursaries will be awarded to needy students with good academic records who are registered at the University in studies leading to careers in medicine, law, creative writing, forestry, engineering, and secondary teaching.

The Kit Malkin Scholarship

This scholarship honours the memory of Christopher (Kit) Malkin, who, after a distinguished undergraduate career, graduated from the University of British Columbia with First Class Honours in Zoology. In the amount of $500, it will be awarded annually to a student with an outstanding record in the biological sciences who is deserving of financial assistance. To mark Kit's special interest, both as an undergraduate at the University of British Columbia and as a graduate student at Stanford, where he tragically lost his life, preference will be given to a candidate continuing studies or research in marine biology.

The Class of Law '53 Scholarship Fund

A scholarship of $200.00, gift of the Class of Law '53, will be awarded to a student in Law. The winner will be selected on the basis of scholastic achievement combined with need for financial assistance. Contributions from members of the Class are used to provide the annual scholarship and to establish a fund for maintaining the scholarship in the future.

The A. J. Mouncey Memorial Scholarship

To honour the memory of Ada J. Mouncey, founder and for many years Director of Shurpass Pacific College, and to pay tribute to her generosity and devotion in helping others, this scholarship has been established by her colleagues, students, and friends. It will be awarded annually to a student of the College who is proceeding in the fall to a full programme of Second Year studies at the University of British Columbia. The award will be made to a student selected on the basis of high academic standing and outstanding personal qualities. Candidates will be recommended by the College to the University.

The Retail Wholesale & Department Store Union Local 535 Bursary

This bursary of $250.00 is offered by the Retail Wholesale & Department Store Union Local 535 to sons, daughters, and legal wards of active members of the Union in good standing. It is open in competition to applicants who are proceeding from Grade XII or Grade XIII to begin studies at the University of British Columbia, the University of Victoria, or Simon Fraser University, in a full programme leading to a degree in any field. To be eligible for consideration a candidate must have satisfactory academic standing (normally an overall average of at least 65% in Grade XII or XIII). In the selection of the winner, the basic factor will be the financial need of the candidates and their families. Those who wish to apply for this bursary must obtain the Special Bursary Form from Dean Walter H. Gage, University of British Columbia, Vancouver 8, B. C. The completed application must be received by him not later than August 1st. The winner will be selected in consultation with the Union.

The U.B.C. Alumni Association Graduate Fellowship

A fellowship of $3,000.00, gift of the U.B.C. Alumni Association, is offered to students beginning or continuing studies at the University of British Columbia in the Faculty of Graduate Studies in a full programme leading to a higher degree in any field. Only students with outstanding (first class) records will be considered. Other factors being equal, preference will be given to a U.B.C. graduate or the son or daughter of a graduate. In order to compete for this fellowship an applicant must (a) be accepted, without condition, as a candidate for the Master's or Doctor's degree by the department concerned. This letter of application must be submitted to the Registrar not later than March 1st; (b) notify the Dean of Inter-Faculty and Student Affairs of his desire to be considered for the award. This letter must also be submitted not later than March 1st. The University, in consultation with the Alumni Association, reserves the right, in the event that applicants are not sufficiently outstanding, to withhold the award or to offer two awards of $1,500.00 each.

The Dukowski Family Scholarship

This scholarship of $100.00, the gift of Mr. A. Dukowski of Vancouver, will be awarded to a deserving student of Polish Language or Literature who shows promise of ability for independent work in one of these fields.

The Pacific Pine Co. Ltd. Scholarship in Forestry

A scholarship of $300.00, gift of Pacific Pine Co. Ltd., New Westminster, is available for a student engaging in graduate study and research in Forestry at the University of British Columbia. It will be awarded on the recommendation of the Faculty of Forestry to a student who has a good scholastic record, and has shown special interest in and aptitude for the field of forest products. In making the award, consideration will be given to promise of ability in investigational and research work.