1966-1967

REPORT OF THE PRESIDENT

THE UNIVERSITY OF BRITISH COLUMBIA

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for the Academic Year 1966-1967

VANCOUVER, BRITISH COLUMBIA, 1968

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FOREWORD

The Board of Governors,
The University of British Columbia.

Mr. Chancellor and Gentlemen:

I present herewith my report for the academic year 1966-67. In these pages you will find a brief review of the activities of the University and the Faculties.

You will note that we have continued to make substantial progress throughout the year; you will also learn that we are still plagued by shortages of money for facilities and staff, affecting nearly every department.

I hope you will find satisfaction in the accomplishments recorded here.

Yours sincerely,

WALTER H. GAGE,
Acting President.

TABLE OF CONTENTS

Foreword 5

1. *The University* 9

2. *The Faculties* 12

3. *Other Departments of the University* 24

Publications of the Faculty and Staff 30

I

THE UNIVERSITY

EARLY IN THE FALL of 1966 President Macdonald announced that he intended to resign at the end of June 1967. This announcement, totally unexpected, was received with dismay and his resignation was accepted only with the greatest regret and reluctance by the Board of Governors.

During his five years as President Dr. J. B. Macdonald gave vigorous, courageous, and imaginative leadership to the University, and, through the Macdonald Report, profoundly influenced the course of higher education both in this Province and in Canada. A tribute to his outstanding qualities and achievements is expressed in the citation delivered at the Congregation on June 2, 1967, when, in recognition of his service, the degree of Doctor of Science, honoris causa, was conferred upon him. In part, this citation reads:

> . . . when John Barfoot Macdonald took office as President of the University of British Columbia in 1962, he accepted, consciously and willingly a formidable task. After five years it is no exaggeration to assert that he has transformed this campus. Of the accomplishment that won him an enviable reputation as a scientist and administrator before he arrived I shall not speak. We shall remember him for all that he has done for us: we shall remember him for the Macdonald Report, we shall remember him for the multiplication of universities and colleges in the Province, we shall remember him for the metamorphosis that has occurred in the scope and importance of graduate studies, we shall remember him for his forthright courage and his insistence upon excellence in every phase of the University's activity. Above all, we shall remember him for his integrity, that most prized of all academic qualities.

At the end of June 1967, Dr. Blythe Eagles retired as Dean of the Faculty of Agriculture and Dean A. W. Matthews as Dean of

the Faculty of Pharmacy. Dean Eagles, whose association with the University of British Columbia began in the "Fairview Shacks," gained the affection and esteem of his friends and colleagues by his scientific achievements, his remarkable personal interest in his former students, and his unswerving loyalty to the Faculty and the University. Dean Matthews will be remembered for the effective leadership which he gave to the Faculty of Pharmacy and, among other things, for his unique service in the interests of inter-collegiate athletics. It is our hope that, although they have relinquished their administrative duties, they will continue a close association with us in the future.

The University considers itself fortunate indeed in having obtained the services of Dr. Michael Shaw, as the new Dean of Agriculture, and Dr. Bernard Riedel as the new Dean of Pharmacy.

Tribute must also be paid on her retirement to Miss H. Evelyn Mallory, who served as Head and later as first Director of the School of Nursing. Outstanding in her profession, Miss Mallory combined her knowledge and experience with patience, industry, and imagination to develop a School of Nursing at this University recognized for its high standards and proficiency. We all wish Miss Mallory every happiness in her retirement.

Others who have reached retiral age and to whom we express our deep gratitude are Dr. Frank Forward, for many years Head of the Department of Metallurgy and more recently on leave with the Science Secretariat in Ottawa; Mr. Harry Adaskin, who initiated courses in Music at this University; Dr. Dorothy Dallas, Professor of French; Dr. D. C. B. Duff, Professor of Microbiology; Dr. Braham G. Griffith, Professor of Forestry; and Miss M. E. Macfarlane, Associate Professor of Home Economics.

The year 1966-67 also had its measure of sadness in the deaths of Dr. Rex V. Boughton, Professor of Education; Miss Edna Baxter, Associate Professor of Education; Dr. Edgar C. Black, Professor of Physiology; Dr. Robert Thompson, Professor of Geology; Dr. John E. Bier, Professor of Forestry; Mr. David A. Webster, Assistant Professor of Education, and his wife Marlene; Dr. Kenneth Fisher, Clinical Instructor in Psychiatry; Mrs. Nettie Neudorf, Instructor in Nursing; and Mr. Ernst Friedlander, Lecturer in Music. Some were near the beginning of, and others well established in, their careers, but all had given devoted and distinguished service.

The progress of the University and some of the many problems

which it faces are reflected in the reports submitted by the Deans and other officers, excerpts from which will be found elsewhere in this volume.

In common with other institutions of higher education there has been at U.B.C. considerable concern about faculty and student participation in university government. After serious consideration the Senate decided to permit four students, elected by the student body, to become members of Senate. The extent to which student Senators will contribute to university government will depend for the most part on the wisdom of those elected.

The need for adequate operating grants is always with us. Perhaps one of the most serious problems, however, is the lack of adequate accommodation for offices, seminars, laboratories, libraries, and residences. The lag is critical, is seriously hampering efficiency, and will undoubtedly affect academic standards.

During the year the University has received many valuable gifts, most of which have been acknowledged in the pamphlet, "Creative Giving," distributed in June. Merely as examples of these generous donations, one or two should be mentioned.

The University of British Columbia became the first Canadian university to receive a major grant of $150,000 from the Richard Mellon Charitable Trusts to expand training of graduate students in urban and regional planning.

Of very great importance is the gift by Richard Norman Colbeck of 50,000 items, valued at between $150,000 and $200,000, of nineteenth- and early twentieth-century English literature, regarded as one of the finest collections in existence.

The estate of the late Dorothy J. Killam has provided a bequest which will eventually amount to more than $13,000,000. This bequest will provide endowments for special salaries, graduate fellowships, and general purposes.

During the year the Library completed expenditure of a $3,000,000 gift which Dr. H. R. MacMillan provided for the accelerated purchase of library books and other materials. The gift has enabled the Library to expand its collection to more than a million volumes and, in the words of the Librarian, to turn "a minor library into a major one."

2

THE FACULTIES

THE FACULTY OF AGRICULTURE

FOR THE FACULTY OF AGRICULTURE the 1966-67 session had a threefold significance. It marked the admittance of the 50th class in agriculture, the opening of a new building and the appointment of a new dean to replace Dr. Blythe Eagles who has retired.

The Faculty admitted its first class of students in 1917 under Dean L. S. Klinck. Since then the Faculty has granted 1,525 Bachelor's and 307 Master's degrees. Seven students have obtained their Doctorates and 30 students have been awarded the degree of B.A.Sc. in Agricultural Engineering.

On June 14, 1967, the H. R. MacMillan Building was officially opened by the Hon. Ray Williston, Minister of Lands, Forests and Water Resources. The building, located at the south end of the main mall, recognizes the need for and growing importance of interdisciplinary training in the areas of agriculture and forestry. In the building, built in the form of a quadrangle around an open courtyard, the Faculty has its own wing with offices and laboratories for the Departments of Agricultural Economics, Agricultural Engineering, Poultry Science and Soil Science and for the Divisions of Plant Science and Animal Science. The south wing houses the Faculty of Forestry. A connecting wing links the two faculties and houses study and common-room facilities, lecture theatres and lecture-laboratory rooms designed and equipped primarily for specific disciplines, yet convertible to other uses under joint faculty control. It also provides other communal specialized facilities including chemical, laboratory, equipment, and general storage accommodation. The building provides for the needs of 230 undergraduate students and 70 graduate

students in agriculture and a faculty of 28 members. The top floor of the west wing is devoted to a 40,000-volume branch library serving both faculties and under control of the main university library.

A total of 30 per cent of the usable space of the building is for the joint use of the faculties. Of this total, 50 per cent is devoted to lecture-laboratory facilities, 25 per cent to the library and 25 per cent to service, study, student locker, and common rooms.

On the occasion of the official opening of the building, special platform guests were President Emeritus Leonard S. Klinck, first Dean of the Faculty and Dr. F. M. Clement, Emeritus Dean of Agriculture. Dean Blythe Eagles gave his formal farewell address as Dean of the Faculty and welcomed to the university Dr. Michael Shaw, his successor.

THE FACULTY OF APPLIED SCIENCE

Lack of space emerged as a major problem for the Faculty of Applied Science in 1966-67. Progress towards construction of the buildings which were included in the 1963-68 building programme and prepared for support from the Three Universities Capital Fund continues to be very slow. Of these, only the new metallurgy building is under construction and it will be completed in 1968. The other buildings have just reached the drawing stage. McCarter Nairne and Partners have been authorized to prepare working drawings of buildings for mechanical engineering, for civil engineering and for a common block of lecture rooms and offices to be situated in the same area of the south campus.

Enrolment in engineering courses increased again. Both the number of students entering first year engineering and the total number of undergraduate engineering students increased by about 10 per cent over the previous year's figures. Graduate student enrolment increased also by almost the same proportion. However, in the majority of departments, the graduate student enrolment has virtually reached the maximum number that can be accommodated until present limitations of space and facilities are removed.

The year was marked by several other significant events. The Department of Agricultural Engineering received approval for a course of studies leading to the degree of M.A.Sc. in Agricultural Engineering. The School of Nursing received approval of a programme leading to the degree of Master of Science in Nursing

(M.S.N.). Formal studies in the area of biochemical engineering were launched by the Department of Chemical Engineering. An optical engineering laboratory, containing many new items of optical equipment, was established in the Department of Mechanical Engineering, and the Department of Metallurgy was awarded the first National Research Council Negotiated Development Grant in the amount of $375,000 to help establish a Centre for Materials Research.

THE FACULTY OF ARTS

The major subject of debate this year at meetings of the Faculty of Arts was the curriculum. A series of vigorous discussions took place, out of which there emerged a new programme to be offered to a selected group of first-year students in September 1967. At the moment the programme is called Arts 1. It will be restricted to 240 students selected from volunteers and will operate in two sections, each one organized and administered by six instructors who themselves have volunteered from the various departments of the Faculty. A number of topics of contemporary relevance will be chosen for examination. There will be lectures followed by discussion in small groups. The student will be required to write essays, which will be carefully marked and annotated. A student who completes Arts 1 along with two other courses successfully will pass into the second year of his study towards the B.A. It is hoped that the student in this programme will enjoy a close relationship with the teaching staff and will develop powers of analysis and self-expression.

Arts 1 aroused strong opinions among members of the Faculty. It was finally recommended to Senate, however, and that body approved it on an experimental basis for three years. At the same time the Faculty appointed a committee to assess its effect upon the students and its quality as a part of the work required for a B.A.

The Faculty then addressed itself to other aspects of the present requirements, especially those in English, foreign language, and science. The Senate approved a recommendation that in place of English 200 a student may register for a course in literature in any language. The other requirements remain *sub judice*.

As a result of prolonged examination of area-studies a number of changes were made involving the Departments of Asian Studies, Slavonic Studies, Political Science and History. Several courses his-

torical in nature have been transferred to the Department of History; the Department of Asian Studies will concentrate on the languages and literatures of the Oriental countries. The latter department also introduced the study of Sanskrit. The Faculty have recommended that an Institute of Asian and Slavonic Studies be established in order to stimulate graduate work in these fields.

The Departments of Creative Writing and Theatre combined to produce a new graduate programme leading to the M.A. The Department of Religious Studies has also devised a graduate programme for the M.A.

Problems of space continue to worry the Faculty. The Department of Music will move into its new building in August 1967. The Buchanan and the Henry Angus Buildings, however, are overcrowded and it has required considerable skill and patience on the part of the Dean's Office and the appropriate committees to find offices for new members of the Faculty. There is no doubt that the Faculty of Arts must be provided with new quarters.

THE FACULTY OF COMMERCE AND BUSINESS ADMINISTRATION

The primary concern of the Faculty during the past year has been a thorough study of the existing undergraduate programme, and a revision of that programme to bring it into line with current developments in the University and in the business community. As a result of intensive work by a Faculty Curriculum Committee, recommendations have been made to Senate and approved by that body.

The changes adopted have led to a reduction in emphasis on the traditional functional areas of business and to a strengthening of the theoretical aspects of the discipline. The effect of these changes has been to reduce the number of options offered to students and also the unit value of some of the functionally oriented courses, such as accounting and finance. On the other hand, there has been an increase in the number of courses in the quantitative analysis and a course in organizational behaviour has been introduced.

This new programme is an attempt to reflect the objectives of a Commerce degree as set out by the Curriculum Committee in its report to the Faculty, namely, "The general aim of an undergraduate education in business should be to prepare the student for a

future role in management decision-making and professional responsibility in the supporting activities of administration."

After the undergraduate programme report had been accepted by the Faculty, a second committee was formed to examine the curriculum of the existing graduate programme — the programme leading to an M.B.A. degree. Certain changes have already been recommended by this Committee and accepted by the Senate. These changes were mainly of the same kind as those made in the undergraduate degree. The Committee is undertaking a continuing study of the M.B.A. degree and of the general problem of graduate work in the area of business administration. The general aim is to prepare the detail of a doctoral programme which will be accepted in the University community.

THE FACULTY OF DENTISTRY

On July 17, 1967, the Faculty of Dentistry vacated the huts and trailers which had served as temporary quarters for the past three years and moved into the new John Barfoot Macdonald Building (Dental Health Sciences) on the corner of University Boulevard and Wesbrook Crescent. With the substantial completion of this building and of additions to the adjacent Basic Sciences buildings, enrolment in the first year class for 1967-68 was increased to 20 students, with an expected additional increase to 40 for 1968-69.

Over the past several years the research and academic activities of the Faculty have been severely curtailed because of limitations of space and other facilities. With the availability of new quarters, we are looking forward to a rapid expansion of our programmes and to that end have made significant additions to our full-time staff.

The 72,000-square-foot Macdonald Building provides facilities for the teaching of preclinical dental sciences and clinical dentistry. The additions to the various Basic Sciences departments, about 52,000 square feet in all, enable these departments to teach their subjects to combined classes of dental and medical students. Thus, students in the two professions receive a common background of biological knowledge before concentrating on their respective areas of special interest.

One unique feature of the Macdonald building is the 80-chair dental clinic in which students receive the practical experience that is so important a part of their professional education. University

staff, students and their families, as well as members of the community at large, are welcome to apply for treatment.

Interest on the part of prospective dental students in gaining admission to the Faculty continues to be high. The number of students applying for admission to the 1967-68 class was 50 per cent higher than that for the previous year. The ratio of applicants to enrolees was of the order of eight to one. It is gratifying too that the quality of our applicants, as determined by their predental academic performance, has steadily improved over the four years in which we have been accepting students.

THE FACULTY OF EDUCATION

During the 1966-67 year the Faculty of Education continued to expand in a number of directions. But it was not trouble-free expansion. The most noticeable growth occurred in the graduate field. There was a deluge of applications for admission to graduate study, but unfortunately the Faculty had to restrict admission due to lack of adequate facilities. It was also found impossible to get sufficient funds to attract many of the best students that the Faculty would like to join the graduate programme. At the same time we found it impossible to get sufficient office space to accommodate graduate students.

Throughout the year there was a tremendous demand placed on the audio-visual and television studios due to the considerable experimental work underway and the emphasis on audio-visual instruction in teacher training. It has been necessary to add additional technicians and an additional member of staff to that department.

The Psycho-Educational Clinic has now moved into full operation despite the lack of sound facilities. Several doctoral and master's degree students are now working in the clinic as regular referrals of children and parents come to the centre. The collaboration of the Vancouver School Board and the Faculty of Medicine is appreciated.

A special new programme in the training of teachers of commerce was instituted this year with the assistance of the provincial government and the federal Department of Manpower. The programme aims at attracting competent people from business and industry into education to combat the tremendous shortage of commerce teachers.

The provincial government is building new facilities for the In-

dustrial Education and Vocational Education programmes. Thus we have been able to increase the enrolment by 50 per cent and to add two new members to the staff of that division. We have also materially expanded the Department of Educational Administration and we are hoping to expand the Department of Counselling and Guidance with the assistance of a considerable grant from the Department of Manpower.

Although the enrolment in undergraduate years remains fairly static there is an increasing number of persons who are completing the full degree in the Elementary Division before leaving the university. Fewer young people feel two years of study is adequate preparation for a teacher. The result has been a reduction in the number of teachers attending summer session. Summer session courses for undergraduates will continue to diminish in future, but those for graduates will likely expand.

THE FACULTY OF FORESTRY

Enrolment in Forestry again increased significantly in the 1966-67 session, but the Faculty's severe overcrowding problem has been lightened. The number of students in the first-year class rose from 77 to 88 and the total number of graduate students increased from 24 to 34. Overcrowding was relieved by the completion of the new H. R. MacMillan Building, one wing of which Forestry now occupies. The building was officially opened by the Minister of Lands, Forests and Water Resources, the Hon. Ray Williston, on June 14.

The curriculum was kept under review during the year and a number of changes designed to reduce the course load and provide more flexibility were approved. In co-operation with the Faculty of Science a programme leading to the degree of B.Sc. with combined honors in Biology and Forest Biology was developed and approved. It is designed for students who are primarily interested in research and teaching in this field and who are planning to proceed to graduate study. Approval was also secured for courses in Forest Recreation Management and Forest Wildlife Management to be commenced in 1968-69.

A substantial increase in financial grants for research was secured from a variety of sources. The largest was a $40,000 grant to assist and stimulate graduate studies in Forest Economics, Fire Control and Use, and Wood Science. It was provided by the Canada Department of Forestry.

Previous reports of the Faculty of Graduate Studies have referred to continuing increases in enrolment, increasing (even if inadequate) financial support, new degree programmes and gathering problems in providing the space and equipment so necessary to research and instruction at the graduate level. In these respects the year 1966-67 has been no exception. Once again the enrolment in Master's and Doctorate programmes increased, by 14 per cent to more than 1,600. The heaviest proportionate increases occurred in the Master's programmes in Business Administration and in the School of Community and Regional Planning, though the areas of strength in the Sciences and Humanities also continued to expand.

The year saw completion of a review of graduate study at U.B.C. and its publication. This study provides us with an essential foundation for further development and improvements in our graduate area. It has already set the stage for further studies while it has focussed attention on certain aspects of our activities that can be improved.

It is difficult to generalize on strictures that are already slowing down the growth of our graduate school because they differ from one department to the next. However, across the entire campus the pressing shortage of accommodation for the academic and administrative functions of the university is paramount. This is forcing restriction of enrolment, and requiring some faculty members and the students studying with them to make do with facilities that are inadequate. The pressure of this influence will increase with each year it goes unrelieved and will act to restrict the opportunities the university can offer to those of greatest ability and thus to deny the province the lasting benefits they could bring to it.

The addition of the H. R. MacMillan Building will make possible a limited increase in graduate work in forestry and agriculture. However, fine though the new facilities are, they too suffer from the problem that has beset every new building we have added in the last 10 years. The building is too small to do the job that it should do for the province. Had its budget been increased by 20 per cent the improvement in facilities and in its functions at the graduate and research level would probably have been doubled.

The School of Community and Regional Planning enjoyed special development this year. The school received an award of $150,000

from the Mellon Charitable Trusts in support of teaching in the field of regional planning. U.B.C. was the first Canadian university to be selected for such an award.

The Institute of Earth Sciences expanded its horizons during the year and altered its title to reflect its new role. It is now the Institute of Earth and Planetary Sciences. Dr. M. W. Ovenden, formerly of Glasgow University, was appointed as Professor of Astronomy. He will direct the expansion of our activities in Astronomy in collaboration with Canadian Governmental Research staff in this area that will be coming to the University of British Columbia campus.

The Institute of Oceanography had an active year of successful research. Its graduate registration reached 26 and at this level severely taxed facilities available to it. The institute looks forward to the commissioning of the new 130-foot research vessel, which the Canadian Hydrographic Service is building largely to serve the needs of the Institute.

During the year the Institute of Fisheries undertook to support a strongly developing programme in aquatic population and community ecology research. Its studies at Marion Lake have been made an official project of the Canadian Freshwater Section of the International Biological Programme (IBP). Funds from IBP, the Institute of Fisheries, the National Research Council, and U.B.C. have been used to build a "trailer" laboratory at the site. Investigators from other U.B.C. faculties and Simon Fraser University are also undertaking studies using the Marion Lake facilities. If present plans receive Treasury Board approval, the project will be supported by grants of $85,000 a year for the next four years.

THE FACULTY OF LAW

Enrolment in law continued to rise sharply in 1966-67 as was expected. Since 1961, the enrolment has increased nearly 50 per cent. This has resulted in increased sectioning of classes, more seminars and a heavy burden of supervision of the legal writing programme and the moot courts. At the same time, the restricted accommodation available has presented acute problems for the Faculty and hampered its full development.

The Faculty's new curriculum which reflects in part the increasing trend and need of specialization within the legal profession is working well. The demand for law graduates continues high and

will likely do so for some years to come. Among other things, the movement in Canada toward state-supported legal aid plans will intensify the shortage of lawyers and the facilities for their training will have to be expanded significantly in this country.

The Faculty's scholarly interests are shown by the increasing volume of papers and articles being published by its members. However, up to the present legal research in Canada has received virtually no financial support. It is therefore highly promising that the federal government began this year to draw on law schools for special studies and engaged four members of the Faculty to serve on a task force on corporate law. It is hoped that this is the beginning of a development that is long overdue in the field of Canadian legal studies.

THE FACULTY OF MEDICINE

One of the major activities of the Faculty during the past year has been that of preparing for changes in medical education which will be necessitated by the onset of Medicare. Traditionally, medical teaching in the clinical years has involved medical students, internes and residents receiving their training by providing care, under supervision, to charity patients. The growing popularity of voluntary prepaid medical plans in recent years has reduced the number of charity patients to an extent that has affected educational activities. With government-supported Medicare on the horizon it is necessary for medical schools to prepare for the complete disappearance of charity patients. Plans for the development of closed clinical teaching units and of community practices in which normal families will be cared for by Faculty members, residents, internes and students have been progressing and these facilities are now gradually coming into operation.

The year has also seen a steady accumulation of new Faculty members in anticipation of the opening of the Health Sciences Centre. At year's end the Faculty comprised 135 full-time and 374 part-time members.

A Division of Medical Microbiology has been established in the Department of Microbiology. Studies have also begun in clinical pharmacology, a new and rapidly progressing field.

The Faculty also received two major gifts during the year. The chair in medicine, occupied by Dr. R. B. Kerr, has been fully en-

dowed by a generous gift of $500,000 from Mrs. Eric W. Hamber. Mr. H. R. MacMillan has provided a generous and far-sighted gift of $150,000 to support studies into the nature and management of "strokes." The funds will be used to support a neurologist, Dr. R. Einhorn, who will engage in full-time research in this field.

THE FACULTY OF PHARMACY

The 1966-67 session was marked by gratifying increases in research grants awarded to members of the Faculty. The poison control programme, a collaborative study with the Provincial Department of Health Services and Hospital Insurance, was supported by a National Health Research Grant. It is anticipated that the first phase of this programme of providing product information and pertinent data on accidental poisoning and its treatment will be available for distribution next year.

The pilot plan for a Drug Information Centre reported last year continued to receive support from a National Health grant. The application of computers in this work was vividly demonstrated during Open House in March when through the courtesy of IBM and others the research team showed the possibilities of the adaptation of computer technology to drug information processing.

A research project on skin physiology has been continued in collaboration with the Department of Dermatology. In addition, a project in biopharmaceutics designed to determine the generic equivalency of drugs was supported during the year by a National Health Grant. This project has continued to attract considerable attention. Projects in medicinal chemistry and pharmacology have also been supported by grants and are continuing.

Dean A. W. Matthews retired as Dean of the Faculty on June 30, 1967 after 15 years of distinguished service. Dr. B. E. Riedel was appointed the new Dean of the Faculty of Pharmacy.

THE FACULTY OF SCIENCE

The Faculty of Science had another very successful year. Faculty, post-doctoral fellows, graduate and undergraduate enrolments all increased as was expected. Some new undergraduate courses were introduced and some courses were revised. Considerable progress was made in updating first- and second-year courses in response to

changes in the secondary school curriculum. Faculty members published a large number of papers and attended meetings and seminars at home and abroad.

Practically all departments in the Faculty are filled to capacity. Any further growth, especially on the graduate level, will be severely limited by the shortage of space. This is especially felt in Geophysics and Geology as well as in Botany and Zoology. New buildings are urgently required.

The Faculty of Science is fully aware of its three-fold responsibility to provide general education in science to its own students and those of other faculties, to train professional scientists on both the undergraduate and graduate level, and to promote research in all fields of science. But the Faculty is hampered in all these activities by the severe limitation of space and insufficient funds with which to ensure better staff-student ratios, to add needed new equipment, and to provide adequate technical assistance for its researchers.

3

OTHER DEPARTMENTS OF THE UNIVERSITY

THE DEPARTMENT OF UNIVERSITY EXTENSION

THIS YEAR SAW a considerable increase in the number of persons taking part in Extension programmes, with nearly 25,000 people enrolled during the year. The extra-sessional credit programme continued to expand, registering a 10 per cent increase over last year's enrolment. A total of 1,384 persons attended 55 extra-sessional evening arts, science and education courses on campus and at other centres throughout the province. For the first time, evening credit courses were held during the summer.

Sharp increases were registered in enrolments for liberal education and professional programmes. The study-discussion programme in the liberal arts was revived and a new series of independent study courses begun. Canada's Centennial was marked by a special lecture series, entitled "Man's Potential: Vision Unlimited." A number of North America's outstanding scholars, scientists and public servants were brought to the campus to participate.

In co-operation with the Faculties of Applied Science and Law and the professional bodies, expanded programmes of continuing education in Engineering and Law were offered. The Education-Extension programme was also greatly expanded.

The third and final year of the Colombo Plan agreement between the University of British Columbia and the University of Rajasthan was completed during the year. Progress in developing adult educa-

tion programmes in Rajasthan led the Government of India to request that Canada extend the project until 1969. In July 1967, Mr. Knute Buttedahl, director of the project, and Mr. William Day returned to U.B.C. after one year of service at Rajasthan.

THE UNIVERSITY LIBRARY

The University could be well satisfied with the five-year record of its Library. The book collection has doubled in size, as has the use of it. A number of new branch libraries have been opened around the campus, to better serve the needs of faculty members and students.

In 1966-1967 expenditures for Library purposes amounted to $3,212,500, half of which was spent for developing the collection and half for the daily operation of the Library. In increasing the size of its collection from half a million to one million volumes, almost $4,500,000 has been spent since 1962, and of this amount by far the greater part has been derived from the benefaction of Dr. H. R. MacMillan, who by one foresighted act has turned a minor library into a major one.

Yet despite the amazing progress of recent years, the University Library seems to be moving into a period of trials. A survey conducted by a newly formed Student Library Committee confirmed the suspicions of librarians that the students were not complacent about the Library. Criticisms of the lack of study facilities and of the difficulty of obtaining assigned and recommended readings were numerous, and these criticisms were supported by evidence of other kinds. In regard to study space, it is known that the Library has at present 2,500 fewer seats than standards recommend for a University of this size and character. Worsening the space shortage is the fact that both the book collections and the library staff are quickly outgrowing their areas. As for the demand for more books, a computer analysis of loan records showed that indeed scores of titles are in such heavy use that the number of copies would have to be multiplied as much as a hundredfold to satisfy the demand.

These and many other factors point directly to the need for the continued expansion of the Library. Book funds must be maintained at a high level, even though gift funds will be exhausted in 1967-68. As for new library buildings, the need grows ever more urgent as the annual enrolment increases.

THE REGISTRAR'S OFFICE

The problem of the provision of adequate academic advice to students prior to their commitment to their studies may never be solved completely, but a step was taken this year toward a partial solution by the Faculties of Science and Arts. Science students above the first year were able to solicit advice either by mail or in person during the summer months, while Arts students could get advice by seeking out faculty advisers who were on campus for this specific purpose in August and early September.

As a concomitant to the early advice, early registration was permitted for those students who had approved programmes of study. This latter arrangement proved expensive in faculty and staff time and, although it is to be attempted again next year, hope is already being expressed by faculty members that it will be short-lived.

Enrolment continues to grow but the rate decreased slightly. The growth of regular winter session registration was up 5.4 per cent over last year to a total of 17,219. The overall total of students taking credit courses including winter session, summer session, evening classes and correspondence courses rose 2.5 per cent to a figure of 25,786.

The regular winter session student body included 881 whose homes were outside of Canada. This figure represents 5.1 per cent of the sessional enrolment, a slight increase from last year.

Students admitted to the University for the first time in September 1966 numbered 5,247. Of these 58.6 per cent were admitted at the first year level, the same percentage as last year, and 6.6 per cent at the graduate level, up from 5.1 per cent in 1965.

The numbers of those qualifying for degrees continued to rise. This year 3,338 degrees were granted; the figure last year was 3,228. The doctoral degrees numbered 83, a 56 per cent increase over last year.

THE DEAN OF WOMEN'S OFFICE

The number of women students has been increasing steadily and last year represented 35.6 per cent of the undergraduate body. The percentage in extra-sessional summer and winter programmes is even higher — 41 per cent. Significantly, women represent only 19 per cent of the students engaged in graduate studies. About 10 per

cent of the women students are married and it is anticipated that the number of married women continuing their education will increase.

At present circumstances militate against more women students taking graduate studies as they do not in general have the practical equality of opportunity and treatment in economic and social life to permit this. Most married women with home and family responsibilities should take partial courses, both for their own health and the well-being of their families. Yet present federal, provincial and university loan and bursary schemes do not permit this. A student must take a full work load to qualify for financial assistance. Added to this is the fact that women are fearful of borrowing. They do not have as lucrative job opportunities, either temporary or permanent, as men do and dread incurring a debt which will burden them or their husbands for some time to come. There is, therefore, great need for a flexible programme of financial assistance geared to the mature woman student. We hope to present a well-documented case on this need to the appropriate women's organizations and the Commission on the Status of Women.

In the area of counselling, approximately 1,500 women students came to the Office of the Dean of Women for consultation during the year. They were often in their senior years and not predominantly first-year students as might be expected. They presented a complex of academic, social and emotional problems, and the referrals made by faculty members or departments usually involved unique and complicated situations. It is apparent that women students require knowledge and reassurance about the many paths they might take and the numerous crossroads along them at which choices may be made. It is planned next year to invite the participation of interested students in discussion groups with faculty from various departments.

RESOURCES COUNCIL

More than 1,500 gifts from individual and corporate donors brought $4,724,583 to the University and there were a number of gifts in kind. The Alumni Annual Giving Campaign, under the chairmanship of Frank Frederickson, produced $138,000 from 3,667 donors.

As at August 31, 1967, the Three Universities Capital Fund had

reached almost $61 million in pledges ($40.7 million from the Government of British Columbia) and $46 million in payments. U.B.C. receives 42 per cent of the fund income.

SUMMER SESSION 1967

The forty-eighth summer session at the University of British Columbia had a net enrolment of 5,244 students, down some 700 students from the year before. Expo 67 and a new Provincial Department of Education regulation affected attendance, but more important, a larger number of students in the Faculty of Education are completing a greater part of their degree programmes than ever before in regular session. This has created a heavier demand for senior courses in Arts, Science as well as Education.

The Summer Session is attracting a larger number of Arts and Science undergraduates who wish to enrich their programmes with electives, or who require prerequisites for new ventures, together with a decreasing number making up deficiencies. It is interesting to note that the percentage of teachers enrolled has fallen to below sixty per cent for the first time.

The demand for a greater variety of senior undergraduate courses poses an enrolment problem. It seems unrealistic to expect Summer Session to offer the same breadth of courses as is available in regular session. Apart from a core of senior undergraduate courses and a selected few graduate courses which draw a reasonable number of students, the most feasible plan appears to be to offer some courses every year, others every second year and a smaller number every third year.

Summary of Revenue and Expenditure

(Excluding Capital Additions to Endowment, Student Loan and Capital Development Funds)

April 1, 1966 to March 31, 1967

	GENERAL FUNDS	%	TRUST FUNDS For Specific Purposes	%	TOTAL	%	1965-66	%
REVENUE								
Province of British Columbia Operating Grant	$13,920,000	45.4	$	....	$13,920,000	33.6	$12,894,000	37.6
Government of Canada Operating Grant	6,913,309	22.5	....	....	6,913,309	16.7	2,602,873	7.6
Student Fees	8,646,330	28.2	....	....	8,646,330	20.9	8,503,169	24.7
Services	1,045,569	3.4	249,813	2.3	1,295,382	3.1	1,270,424	3.7
Endowment Income	....	....	235,405	2.2	235,405	0.6	341,778	1.0
Sponsored or Assisted Research	....	....	7,455,972	69.6	7,455,972	18.0	5,629,128	16.4
Gifts, Grants and Bequests	....	....	2,712,105	25.3	2,712,105	6.6	2,959,602	8.6
Miscellaneous	150,313	0.5	60,724	0.6	211,037	0.5	136,176	0.4
	$30,675,521	100.0	$10,714,019	100.0	$41,389,540	100.0	$34,337,150	100.0
EXPENDITURE								
Academic	$21,708,416	70.8	$ 1,058,038	9.9	$22,766,454	55.0	$18,664,754	54.4
Library	2,077,931	6.8	1,191,310	11.1	3,269,241	7.9	2,850,310	8.3
Sponsored or Assisted Research	....	....	6,761,440	63.1	6,761,440	16.3	5,414,597	15.8
Administration	1,264,240	4.1	15,325	0.2	1,279,565	3.1	1,210,561	3.5
Student Services	437,949	1.4	145,371	1.4	583,320	1.4	562,050	1.6
Plant Maintenance (including alterations and improvements)	3,846,310	12.5	11,572	0.1	3,857,882	9.3	3,208,732	9.3
Scholarships and Bursaries	593,442	1.9	688,116	6.4	1,281,558	3.1	1,083,190	3.2
General Expenses	136,376	0.5	12,661	0.1	149,037	0.4	190,142	.5
Ancillary Enterprises	27,709	0.1	....	....	27,709	0.1	89,753	.3
	$30,092,373	98.1	$ 9,883,833	92.3	$39,976,206	96.6	$33,274,089	96.9
Reserves Carried Forward from 1966-67 to meet Expenditure in 1967-68 — General Purposes	583,148	1.9	....	....	583,148	1.4	69,310	0.2
— Specific Purposes	....	....	830,186	7.7	830,186	2.0	993,751	2.9
	$30,675,521	100.0	$10,714,019	100.0	$41,389,540	100.0	$34,337,150	100.0

PUBLICATIONS OF THE FACULTY AND STAFF

Publications are listed alphabetically by Faculty and Department as reported by the respective Deans and Heads. The published work of graduate students and technicians has been included, in so far as it has been submitted by Departments. The bibliography is for the academic year 1966-1967 except that in a few cases items published earlier but not previously listed have been included.

AGRICULTURE

Agricultural Economics 32
Agricultural Mechanics 33
Animal Science 33
Plant Science 34
Poultry Science 36
Soil Science 38

APPLIED SCIENCE

Agricultural Engineering 39
Chemical Engineering 39
Civil Engineering 41
Electrical Engineering 42
Mechanical Engineering 44
Metallurgy 46
Mineral Engineering 47

ARCHITECTURE 47

ARTS

Anthropology and Sociology 48
Asian Studies 50
Classics 52
Creative Writing 53
Economics 54
English 56
Fine Arts 62
French 62
Geography 63

German 64
Hispanic and Italian Studies 65
History 65
Philosophy 67
Political Science 67
Psychology 70
Religious Studies 73
Slavonics Studies 73
Theatre 74

COMMERCE AND BUSINESS ADMINISTRATION 77

DENTISTRY 77

EDUCATION 79

EXTENSION 148

FORESTRY 88

HOME ECONOMICS 75

GRADUATE STUDIES
Community and Regional Planning 91
Institute of Earth and Planetary Sciences 91
Institute of Fisheries 92
Institute of Industrial Relations 92
Institute of Oceanography 92

LAW 95

LIBRARIANSHIP 75

LIBRARY 149

MEDICINE
Anatomy 96
Biochemistry 97
Cancer Research Centre 99
Continuing Medical Education 100
Health Care and Epidemiology 100
History of Medicine and Science 102
Medicine 103
Obstetrics and Gynaecology 105
Ophthalmology 105
Paediatrics 106
Pathology 109

Pharmacology 111
Physiology 113
Psychiatry 114
Surgery 114

NURSING 47

PHARMACY 117

PHYSICAL EDUCATION 87

REHABILITATION MEDICINE 117

SCIENCE
Botany 118
Chemistry 121
Geology 130
Geophysics 132
Mathematics 135
Microbiology 138
Physics 139
Zoology 143

SOCIAL WORK 76

FACULTY OF AGRICULTURE

Department of Agricultural Economics

DORLING, M. J., "Costs of Production for Raspberry Enterprises in the Abbotsford Area of British Columbia," *Country Life in British Columbia* 52:6-7, September 1966.

— and E. K. Acton, "Section III — Irrigation from an Economic Viewpoint," *British Columbia Irrigation Guide* prepared by the British Columbia Irrigation Committee. Victoria, Published by the authority of the Minister of Agriculture, 1967, pp. 47-55.

VERNER, G. and P. M. Gubbels, *The Adoption or Rejection of Innovations by Dairy Farm Operators in the Lower Fraser Valley* (Agricultural Economics Research Council of Canada, Publication, 11) [Ottawa] 1967.

— and F. W. Millard, *Adult Education and the Adoption of Innovations by Orchardists in the Okanagan Valley of British Columbia.* Vancouver, University of British Columbia, Department of Agricultural Economics, 1966.

—, see also Education.

Re: Faculty and Staff Publications

To reduce file size, the publications section has not been included. For this information, contact the University of British Columbia Archives.

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