

THE UNIVERSITY OF BRITISH COLUMBIA Vancouver Senate Secretariat Senate and Curriculum Services Enrolment Services 2016–1874 East Mall Vancouver, BC V6T 1Z1 www.senate.ubc.ca

VANCOUVER SENATE

MINUTES OF SEPTEMBER 15, 1993

Attendance

Present: President D. W. Strangway (Chair), Vice-President D. R. Birch, Mr. S. Alsgard, Dr. A. P. Autor, Dr. S. Avramidis, Mr. J. A. Banfield, Dr. J. Barman, Dr. J. D. Berger, Dr. A. E. Boardman, Dean pro tem. M. A. Boyd, Mr. P. T. Brady, Dr. D. M. Brunette, Dr. D. G. A. Carter, Ms. L. Chui, Dr. D. H. Cohen, Dr. T. S. Cook, Dr. M. G. R. Coope, Dr. G. W. Eaton, Dr. J. H. V. Gilbert, Mr. E. B. Goehring, Dr. J. Gosline, Dean J. R. Grace, Dr. S. E. Grace, Ms. C. L. Greentree, Rev. J. Hanrahan, Mr. F. B. N. Horsburgh, Mr. A. Janmohamed, Dr. J. G. T. Kelsey, Mr. G. Kettyle, Dr. S. B. Knight, Mr. H. Leung, Dr. S. C. Lindstrom, Mr. R. W. Lowe, Dr. D. J. MacDougall, Dr. M. MacEntee, Dr. R. T. A. MacGillivray, Dean M. P. Marchak, Mr. P. R. Marsden, Dean B. C. McBride, Dr. H. McDonald, Mr. R. S. McNeal, Dean J. H. McNeill, Mr. W. B. McNulty, Dean A. Meisen, Dr. R. J. Patrick, Rev. W. J. Phillips, Mrs. M. Price, Professor M. Quayle, Mr. A. A. Raghavji, Dr. D. J. Randall, Professor R. S. Reid, Professor J. A. Rice, Dean J. F. Richards, Dr. H. B. Richer, Mr. M. G. Schaper, Dr. R. A. Shearer, Dean N. Sheehan, Dr. C. E. Slonecker, Dean C. L. Smith, Ms. S. J. Spence, Dr. R. C. Tees, Dr. S. Thorne, Dr. W. Uegama, Dr. D. A. Wehrung, Dr. E. W. Whittaker, Dr. R. M. Will, Dr. D. Ll. Williams, Mr. E. C. H. Woo, Mr. C. A. Woods, Dr. W. C. Wright, Jr.

Regrets: Chancellor R. H. Lee, Mr. D. A. Anderson, Dean C. S. Binkley, Mr. W. F. Dick, Mr. M. A. Fuoss, Dean M. A. Goldberg, Dean M. J. Hollenberg, Dr. M. Isaacson, Dr. M. Levine, Dr. D. M. Lyster, Ms. C. A. Soong, Dr. L. J. Stan, Dr. J. Vanderstoep.

Senate membership

DECLARATION OF VACANCY (UNIVERSITY ACT, SECTION 35 (6))

Mr. Tony Fogarassy - Convocation Senator

INTRODUCTION OF SENATORS

The Chair welcomed the new members to Senate.

Minutes of the previous meeting

Dr. Tees	That the minutes of the ninth regular meeting
Mr. Woo	<i>of Senate for the Session 1992-1993, having</i>
	been circulated, be taken as read and adopted.

Dr. Cook informed Senate that there had been an omission in the statement of policy circulated to Senate in the year end report of the Committee on Student Awards. However, the omission was discovered before the minutes were printed and the policy statement is therefore correctly stated in the minutes as circulated.

The motion was put and carried.

Chair's remarks and related questions

President Strangway welcomed new and returning members of Senate and said that he looked forward to an interesting year.

Remarks by the Minister responsible for Universities

President Strangway reported that the Minister was unable to attend the meeting.

From the Board of Governors

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

- i. Enrolment quota of 180 students in the first year of the LL.B. program in the Faculty of Law (pp.10555-7)
- ii. Establishment of a Centre for Labour and Management Studies (pp.10561-4)
- iii. Establishment of a Centre for Molecular Medicine and Therapeutics (pp.10564-5)
- iv. Proposals from the Faculty of Graduate Studies: separation of the M.P.E. program into an M.P.E., and M.A. and an M.Sc., a Ph.D. program in Law, the conversion of the B.Arch. to a Master of Architecture (with the exception of ARCH 569), and a Master of Arts in Vocational Rehabilitation Counselling, and curriculum proposals from the School of Human Kinetics. (pp.10557-8)
- v. Awards (pp.10621-2)
- vi. Establishment of Chairs in Chinese Research, Chairs in Japanese Research, Chairs in Korean Research, Chairs in South Asian Research, and Chairs in South East Asian Research. (p.10616)

- vii. Establishment of the UBC/St. Paul's Hospital Foundation Chair in AIDS Research. (p.10617)
- viii. Curriculum proposals from the Faculties of Agricultural Sciences, Applied Science, Arts, Education, Graduate Studies (with the exception of ELEC 576 which has been withdrawn), Medicine and Science, and new programs in: Canadian Studies, an M.Sc. program in Genetic Counselling and a B.Sc. program in Freshwater Science. (pp.10603-6 & pp.10623-32)

Financial Statements

In accordance with section 31(2) of the *University Act*, Financial Statements for the year ended March 31, 1993, had been submitted to Senate for information. The report of the Vice President Administration and Finance for 1992-93 was circulated at the meeting.

Mr. Gellatly spoke briefly to the report, highlighting various aspects of the financial statements and some other sections of the report for the information of Senate.

In response to a query, Mr. Gellatly reported that approximately \$2 million would be spent on the upgrading of classrooms in addition to funds for audiovisual equipment. He stated that committees are already working on the upgrading of classrooms and that a priority list has been developed. If this additional government funding for classroom maintenance continues, it is intended that \$2 million a year will be spent on classroom upgrading over the next few years.

The President responded to a query concerning matching funds from the government for the World of Opportunity Campaign. He stated that a clear agreement had been reached with respect to the amount and a cash flow model. The amount would be slightly less than the original \$86.4 million.

The Librarian referred to the 9% increase in the acquisitions budget and stated that this had helped considerably in easing the effect of the 20% inflation increase experienced last year. She noted, however, that some of the increase resulted from grants and trusts and contracts for sponsored research.

Reports of Committees of Senate

ACADEMIC POLICY COMMITTEE

Dr. Tees presented the following report concerning the length of the fall term and the

December and April examination periods.

Recommendation 1

That the inequity in the length of the fall and spring terms be corrected. In order to adequately fulfil the necessary timetable of lectures and examinations, the fall term would, on occasion, need to begin prior to Labour Day, though no earlier than September 1st.

Recommendation 2

That each examination period (April and December) be no more than thirteen weekdays in length, with the same number of examination periods per day.

Recommendation 3

That the Registrar's Office conduct a feasibility study (in consultation with Faculties and Departments) on whether a reasonable examination timetable can be constructed for publication prior to registration.

Rationale

In the past, UBC considered two term courses to be the norm, culminating in final exams held during the extended April examination period. Over the years, more and more one term courses have been developed. In some programs, all courses beyond the first year are one term courses. Unfortunately, the two terms are not of equal length. The first term is bounded by Labour day and Christmas day and Easter often occurs during the April examination period. Since an attempt is made to keep the number of lecture weeks constant, the inequity is largely associated with differences in the respective examination periods. In the 1992/93 Calendar, the December examination period extends from December 8 to December 22 (a total period of 15 days including two Sundays) whereas the April period extends from April 6 to April 30, a total of 25 days including 3 Sundays, Good Friday and Easter Monday. December examinations are scheduled in 4 time periods each day, whereas April examinations are scheduled in three longer time periods.

The Academic Policy Committee circulated a memorandum on end-of-term examinations to all Deans, Directors and Department Heads and received more than 60 responses, many of them quite detailed and passionately argued. Respondents considered examinations essential. There was considerable dissatisfaction expressed with the present examination schedules. One of the points made by many respondents was that a comparably arranged examination schedule in two terms would be the most desirable objective. Responses were also unanimous in arguing against any reduction in lecture weeks in the fall term. It was pointed out that our U.S. counterparts offer more weeks of instruction. Strong support certainly existed for a reduction in length of the April examination period with the suggestion that a 13-day examination period would be appropriate for both terms. A significant number of respondents including students, favoured treating Labour day as a holiday and starting as close as practical on September 1st each year. This is certainly the simplest way to allow 13 weeks of lectures and a reasonable examination schedule. The increase in the fall term could be compensated by the decrease in length of the spring term which would occur as a direct consequence of the reduction in the spring examination period to 13 days.

In the Report of the *Ad Hoc* Committee on Registration Week adopted by Senate in 1987 (Senate minutes p.9115) a minimum examination period of 13 weekdays for the fall term was recommended together with a minimum period of three days separating the first examination from the last day of classes. In practice these three days have been Saturday, Sunday and Monday. A survey of the academic years for 1992-93 for a representative set of Canadian Universities shows that most universities have 13 weeks of instruction per term. They also appear to be capable of scheduling their examinations in a substantially shorter time period, particularly in the spring term. Certainly the adoption of a 13 weekday examination period for both terms would still place UBC at the more generous end of the spectrum.

The length of the UBC examination period is undoubtedly related to the perceived need to preserve all possible options. It seems likely that many programs, particularly in the senior years are so well defined that their examination schedules could be optimized without reference to outside courses. Faculty should take an interest in the examination schedules for students in their programs, certainly no less than their timetables for which departments presently retain some responsibility. It is potentially possible (and thus we are recommending a feasibility study) that an examination schedule could be produced which, once established, would not need to vary dramatically from year to year; it would simply rotate by two days per year so that no course should have a preferred time in the schedule. New courses would be fitted into the timetable as they appeared. Such a schedule would not cater to all possible options but rather would cater primarily to the vast majority of students. It would be essential if this were the case to publish the schedule ahead of registration to make clear the options available to each program in a given year.

Dr. Tees Dr. Williams That recommendations 1, 2 and 3 be adopted.

Carried.

NOMINATING COMMITTEE

Dr. Williams, Chair of the Committee, presented the Committee's recommendations for membership on Senate committees for the three year term 1993-96.

Dr. Williams reminded Senate that recommendations for student membership on the various committees are made annually and that the current assignments were approved at the April meeting, with the exception of the Ad Hoc Committee on University Organization whose creation had been approved at the May meeting of Senate. Since it had been suggested that the establishment of this committee was urgent, a joint meeting of the newly elected Nominating Committee and the previous Nominating Committee was called to establish the membership of the Ad Hoc committee so that it could begin its work with the minimum of delay.

Dr. Williams drew attention to the proposed membership of the Ad Hoc Committee on the Environment for Teaching and stated that at the time the recommendations were made the Nominating Committee was not aware that the Ad Hoc committee had completed its task and was recommending that it be discharged.

Referring to the terms of reference of the Library Committee, Dr. Williams explained that clause (c) had previously read "to make rules for the management and conduct of the Library" which had been taken from section 36 (l) of the University Act. and added to the Committee's terms of reference in May 1975 without the two-thirds majority vote required to delegate Senate's powers to a committee. The Nominating Committee therefore recommended that clause (c) be amended to read "to advise on the management and conduct of the Library."

The Nominating Committee noted that the Committee on Extracurricular Activities had not met since November 1987 and therefore recommended that the committee be discharged. Dr. Williams explained that the Ad Hoc Committee on University Residences had almost completed its task and that the membership therefore remained unchanged.

Dr. Williams drew attention to the recommendation for Senate representation on St. Mark's College Board and noted that this had been changed to Dr. R. J. Patrick.

Dr. Williams	ſ	That the recommendations of the Nominating
Dr. MacDougall	}	Committee be approved.

In amendment:

Dr. Will Dean Marchak That the clause (c) of the terms of reference of the Library committee be amended to read: "To recommend to the Senate with respect to rules on the management and conduct of the Library."

> The motion, as amended, was put and carried.

Dr. Williams reminded Senate that section 36 (a) of the *University Act* states that Senate shall elect a Vice Chair at least annually, who shall chair meetings in the absence of the President; but in no case shall a Vice Chair serve more than two consecutive terms.

}

Dr. Williams	١	That Dr. Richard C. Tees serve as Vice Chair
Dr. MacDougall	}	of Senate for the 1993-94 session.

Carried.

STUDENT AWARDS

New awards (see Appendix A)

In presenting the report Dr. Cook drew Senate's attention to the bursaries endowed from the estate of John Valentine Clyne, former Chancellor of UBC, and to the memorial fellowships endowed by the late Dean Emeritus Blythe Eagles and Violet E. Eagles to honour Leonard S. Klinck who was President of UBC from 1919 to 1944. Dr. Cook Dean Richards That the awards (listed in Appendix A) be accepted and forwarded to the Board of Governors for approval and that letters of thanks be sent to the donors.

Carried.

AD HOC COMMITTEE ON UNIVERSITY ORGANIZATION

}

Dr. Shearer, Chair of the Committee, reported that the Committee had met three times to discuss methods of approaching the difficult task of studying the organization of the academic side of the University and making recommendations. Dr. Shearer informed Senate that the Committee would be contacting Deans and Department Heads for their advice on some aspects of the Committee's work.

AD HOC COMMITTEE ON ENVIRONMENT FOR TEACHING (SEE APPENDIX B)

Dr. Kelsey presented the report in the absence of the Chair of the Committee. In introducing the report, Dr. Kelsey emphasized the importance and urgency of the issues concerning the provision, equipping, maintenance and administering of teaching space.

Dr. Kelsey gave a brief overview of the report explaining that the first section outlines the areas which fall within the broad phrase "environment for teaching" and deals with who teaches, how well they teach, how well they are prepared for in what they are teaching, where they teach, and for each of those areas of interest the committee decided to focus on two questions: first, what are some of the important issues that are to be considered in that area and, second, is somebody else dealing with them. The committee was able to list what it thought were important issues and resolved that for the first four areas discussed in the report somebody else was

appropriately dealing with those issues. For instance, last year the Committee of Deans established a working group to deal with recruiting, rewards and incentives. On the evaluation of teaching Senate will, in the course of this Senate, be forming another ad hoc committee to re-focus there, and on the preparation for teaching the committee noted that the Centre for Faculty Development and Instructional Services is already dealing with these issues.

On curriculum issues, it was noted that the Senate Curriculum Committee, in conjunction with departmental curriculum committees, already deals with most, if not all, of the detailed curriculum matters. Dr. Kelsey reminded Senate of the report of the outgoing committee of the previous Senate which referred to the need perhaps for that committee to address some broader curriculum issues than it has done in the past.

As far as the physical environment is concerned, it was not immediately clear to the committee that anyone was dealing with the issues raised. The findings of the committee are summarized in section 3. of the report. The committee found that there is a sizeable problem, and that Senate needs to be aware of it. The current state of teaching space at UBC reflects years of neglect. The committee found that there is a Master Plan for almost every aspect of campus operation except teaching space. Pages 8 to 11 of the report give some idea of the scale of the problems of upgrading, equipping and even scheduling which currently exists on campus and a sense of the astronomical cost of fixing those problems. However, the committee became aware of the President's Advisory Committee on Space Allocation, and recommendation 2(a) therefore urges this advisory committee to move as quickly as possible on the issues which fall into its domain, and recommendation 2(b) requests that Senate be among the recipients of its eventual report.

In conclusion, Dr. Kelsey stated that the committee asks that the report be forwarded to other relevant groups on campus who are presently addressing issues relating to the teaching environment, in particular to the Advisory Board of The Centre for Faculty Development and Instructional Services.

The committee recommended acceptance of the report and the following recommendations:

- 1. Senate recognize the critical importance of the issues relating to the physical teaching environment at UBC and the urgent need for action relating to these issues. Specifically,
 - a. the development, with input from the academic community, of a Master Plan for teaching space at UBC,
 - b. clarification of the policies on the management of classrooms (the issue of centralized or decentralized responsibility),
 - c. resolving the uneven, and sometimes inadequate, provision of basic teaching equipment by providing a minimum standard of equipment for all classrooms and labs,
 - d. developing an ongoing budget for the maintenance and renewal of existing teaching space, and
 - e. investigating the feasibility of developing some space for creative and innovative teaching opportunities at UBC.
- 2.a) Senate invite the Advisory Committee on Teaching Space to pursue the matters identified above in such a way as to develop an immediate resolution.
- 2.b) Senate forward a copy of our Report to the Advisory Committee on Teaching Space and that they be invited to table a copy of their report with Senate.
- 3. Senate forward the issues raised under item 2.1 (Recruiting, rewards and incentives) to the Working Group On Teaching and Learning, Committee of Deans, and that the Vice-President, Academic be asked to provide Senate with a report from this Working Group on or before September, 1994.
- 4. Senate forward a copy of our Report to the other relevant Committees on campus who are presently addressing issues relating to the teaching environment, in particular to the Advisory Board of The Centre for Faculty Development and Instructional Services and to The Board of Governors.
- 5. Senate discharge the Ad Hoc Committee on the Environment for Teaching.

Dr. Kelsey	1	That the report and the recommendations of
Mr. Banfield	}	the Ad Hoc Committee on the Environment
,		for Teaching be accepted.

Dr. Shearer drew attention to item 2.1 on page 2 of the report stating that he was disturbed by the suggestion that the research bias is solely driven by market considerations and people trying to find jobs elsewhere which he did not think was an accurate interpretation.

Dr. Shearer also drew attention to the section of the report dealing with "ownership" of teaching space. He noted that although the report states that there is a need for reaffirmation of the UBC policy with respect to "ownership", a policy which in effect says that no department owns anything, the committee had not included this in its recommendations and he expressed concern over this omission.

Dr. Kelsey responded that the committee had seen it as part of the mandate of the President's Advisory Committee on Space Allocation to deal with the issue of centralization versus decentralization. The Senate committee itself favoured a centralized model of allocation of classroom space.

Mr. Brady referred to section 2.2 of the report concerning teaching evaluation. He noted that the 1991 *Ad Hoc* Committee on Teaching Evaluation had recommended the establishment of a new *ad hoc* committee to review the progress made following the recommendations of the 1991 committee and asked when the proposed committee would be established.

Dr. Kelsey responded that the intent was to implement the remaining recommendations of the 1991 committee prior to the establishment of the proposed committee.

Vice President Birch explained that most of the recommendations were directed to particular groups or individuals for implementation and had been implemented to one extent or another. For example, in the case of a recommendation of the *Ad Hoc* Committee on Teaching Evaluation concerning what action is taken in the event that a course and/or instructor are assessed as less than satisfactory, Dr. Birch stated that, as required, he had provided Senate with an oral report based on information supplied by the Deans and that he would continue to report on this matter over the next two years.

In response to a query concerning questions 1. to 5. under section 2.3 **Preparation for Teaching,** Vice President Birch stated that, as he understood it, the primary concern of the committee was to ascertain whether or not there was a bodyon campus which was addressing those questions systematically. The committee ascertained that the Centre for Faculty Development and Instructional Services was the appropriate bodyto deal with the issues raised on an ongoing basis and therefore elected to concentrate on other matters which were not being addressed but which ought to be addressed by Senate.

Mr. Woo noted that the groups named in recommendations 2(b), and 3 were invited to report to Senate and suggested that recommendation 4 be amended to invite the Advisory Board of The Centre for Faculty Development and Instructional Services to provide Senate with a copy of its annual report. Dr. Kelsey accepted this suggestion as a friendly amendment.

Father Hanrahan referred to section 2.4 **Curriculum** and stated that he was disappointed that the report did not include any provision for the Senate Curriculum Committee to not only evaluate the curriculum in a more general fashion but to maintain an overview of the whole movement and pattern of curriculum.

After further discussion the motion, with the amendment to recommendation 4, was put and carried. Dr. Shearer Dean Smith That Senate ask the President's Advisory Committee on Space Allocation to review carefully the policy with respect to the ownership of teaching space.

Carried.

Faculty of Graduate Studies

GUIDELINES FOR THE DISTANCE DELIVERY OF GRADUATE PROGRAMS

}

The following guidelines for the distance delivery of graduate programs have been

circulated:

At their January 1993 meeting, the Western Canadian Deans of Graduate Studies recognized the growing demand for distance delivery graduate programs offered in a combination of modes, including on-site, on-campus and technologically mediated instruction. They offer their support for innovative programs that demonstrate high quality, provide students with genuine professional development and lead to opportunities for further study.

The Deans caution, however, that unless such programs are properly organized and delivered, they could seriously compromise the integrity and reputation enjoyed by existing on-campus graduate degree programs in Western Canada. To minimize this risk, the Deans endorse the general principle that distance graduate programs must meet the same standards of quality that are expected of equivalent programs offered on campus.

In order to achieve this equivalency, the Deans endorse the following guidelines related to program, admission, instruction and supervision, and instructional resources:

A. Program

- 1. The university must take the same commitment to students regarding the availability and method of delivery of a complete program as it makes to students enrolled in on- campus programs.
- 2. The program must include an on-campus component to be defined by the university.
- 3. Course content and contact hours must be equivalent to comparable courses offered on campus.
- 4. Course must not be offered in so compacted a time frame as to preclude opportunities for independent study, reflection and investigation within each course.
- 5. Wherever possible, the same choices of elective courses that are available in equivalent on-campus programs must be offered to students.

- 6. Time limits for program completion must be the same as the limits for equivalent on-campus programs.
- B. Admission Requirements
 - 1. Admission criteria required of all candidates must be no less than those required for equivalent on-campus programs.
 - 2. Unclassified or occasional students who are allowed to register in individual courses of the program must meet the same registration criteria as required for courses in equivalent on-campus programs.
- C. Instruction and Supervision
 - 1. There must be immediate, on-going interaction both between individual students and the instructor and among students in the delivery of each course.
 - 2. Each student must be assigned to a program supervisor/advisor who is a member of the academic staff of the university. The quality of supervision or advising must be no less than that available to students in equivalent programs on campus.
 - 3. Qualifications and selection procedures for instructors and supervisors/advisors must be no less stringent than those required for equivalent on-campus programs.
- D. Instructional Resources
 - 1. Instructional resources (for example, library, computer, media and laboratory resources) necessary for graduate- level study must be available to all students.

Dean Grace	۱	That the Guidelines for the Distance Delivery
Mr. Goehring	}	of Graduate Programs be approved.

Carried.

Faculty of Science

PROPOSAL TO ESTABLISH THE WEST-EAST CENTRE FOR MICROBIAL DIVERSITY

The following proposal to establish the West-East Centre for Microbial Diversity had been circulated:

It is recommended that The University of British Columbia establish a West-East Centre for Microbial Diversity. This centre will be a research institute, founded in collaboration with the National University of Singapore. The proposal developed from discussions between the Head of Microbiology at UBC, Dr. Julian Davies, and the Director of the Institute for Molecular and Cellular Biology of the National University of Singapore, Dr. Y. H. (Chris) Tan. The concept of a centre was catalyzed by an offer from Dr. Tan of 3.5 million Singapore dollars (about CDN \$2.8 m), to support research at UBC.

The centre will act as a strong stimulus to research into microbial diversity and enhance the graduate program and research activity of the Department of Microbiology and Immunology, as well as related departments such as Zoology and Botany.

The University of British Columbia's Department of Microbiology and the National University of Singapore's Institute for Molecular and Cellular Biology have entered into a joint venture to pursue research in the area of microbial diversity. Microorganisms play a critical role in the biology of terrestrial and aquatic ecosystems and yet it is estimated that at present we can identify less than 5% of the total number of species. The work to be undertaken in the centre will focus on the identification of new organisms and their unique metabolic and physiological characteristics. In addition, the organisms will be evaluated to determine if they have properties of interest to the pharmaceutical and bioremediation industries.

The West-East Centre will bring together the IMCB's excellence in molecular biology with UBC's outstanding groups in biotechnology and microbiology. Together they will work on problems central to developing a better understanding of biodiversity. The research is timely, germane and has the potential to identify organisms which can be exploited by all sectors of the biotechnology industry.

Mission -- IMCB Singapore and UBC will collaborate to establish a first-class international research centre for studies of microbial diversity. In addition to research in the areas described below, WEC will provide training in the general area of microbial ecology and will establish collaborations with academic and industrial science to seek productive applications of research at the centre.

The strategy of research at WEC will encompass the following specific goals:

- 1. Develop and apply novel methodologies for the isolation, characterization and culturing of microbes from diverse environments soil, lakes, rivers, sea, etc.
- 2. Study the physiology and biochemistry of microbial cultures (with particular reference to newly identified strains). Characterization of new genotypic and phenotypic markers; identification of novel metabolites of primary and secondary origin.
- 3. Identification of new pathways for the degradation or modification of toxic chemicals and metals (bioremediation and bioconversion).

- 4. Studies of gene exchange and transfer in the environment: the role of plasmids, bacteriophages, transposons and other elements.
- 5. Establish a collection of characterized microbial strains as a reference resource and for industrial applications.
- 6. Analyses of evolutionary relationships between identified microbes (horizontal vs. vertical gene transfer, etc.)
- 7. Developing new screening and monitoring systems for microbes and their metabolic products. Using new biochemical approaches for the screening for biological activities of secondary metabolic products. Development of rapid and automatic screening procedures for therapeutically-active metabolites.

Organization -- The Microbiology Department of UBC and IMCB will play key roles in project selection and guidance at WEC. Several UBC faculty members will be invited to participate as associate members and will play direct roles in the research of doctoral-level researchers at WEC. WEC will work closely with the proposed Centre for Biodiversity (CB) at UBC.

Dean McBride	1	That the proposal to establish the West-East
Dean McNeill	}	<i>Centre for Microbial Diversity be approved.</i>

Carried.

Chairs

PROPOSAL TO ESTABLISH THE ASA JOHAL CHAIR IN PAEDIATRIC ONCOLOGY

Dr. Slonecker)	That the proposal to establish the Asa Johal
Dr. MacGillivray	}	Chair in Paediatric Oncology be approved.

In response to a query concerning Library resources, Vice President Birch stated that the interest from the funding would not cover the full cost of the chair let alone library resources. However, since this was not a new area of research he did not think that this would be a problem.

The motion was put and carried.

PROPOSAL TO ESTABLISH THE NORMAN KEEVIL CHAIR IN MINERAL EXPLORATION

Dean McBride	٦	That the proposal to establish the Norman
Dr. Williams	}	Keevil Chair in Mineral Exploration be
		approved.

Carried.

PROPOSAL TO ESTABLISH THE MAN IN MOTION FOUNDATION CHAIR IN SPINAL CORD RESEARCH

Dean McBride Dr. Slonecker That the proposal to establish the Man in Motion Foundation Chair in Spinal Cord Research be approved.

Carried.

PROPOSAL TO ESTABLISH A CHAIR IN BIOMEDICAL ETHICS

}

}

Dean Grace Dr. MacDougall *That the proposal to establish a Chair in Biomedical Ethics be approved.*

Dean Grace drew attention to the heading "Funding" in the material circulated, and stated that this should read: "The Chair will be funded by donations from hospitals, professional organizations, private sources and matching grants from the Province of British Columbia."

The motion was put and carried.

Preliminary Enrolment figures

Preliminary enrolment figures for 1993-94 were circulated at the meeting. The Registrar explained that the report contained information that had not been given in previous years in that it shows how many students are new to the university, how many have transferred from another program in the university, the total new to the program, and the total registration.

Other business

PROBABILITY AND STATISTICS COURSES

Dr. Will reminded Senate that several years ago an *ad hoc* committee was established to look into the proliferation of probability and statistics courses throughout the university. One product of the *ad hoc* committee was the establishment of a table which appears on page 283 of the current Calendar. Dr. Will stated that the table was out of date and many faculty advisors are not implementing the Senate regulations concerning these courses. He suggested that the Senate Curriculum Committee look into this matter.

PARKING

Mr. Janmohamed, student senator, raised the issue of parking, and asked if spaces could be registered for students who travel long distances as is already done for car poolers. Mr. Janmohamed also asked if B.C. Transit had been approached concerning the possibility of providing university student bus passes and also a better express bus service.

President Strangway responded that a van pooling arrangement was under way and also confirmed that there had been extensive discussions with B.C. Transit on the issues raised. On the question of university bus passes, President Strangway said that he would ask Vice President Gellatly to look into the matter.

Ms. Greentree stated that the lack of parking spaces often resulted in students missing classes while they waited for parking spaces to be vacated, and asked if anything temporary could be done to alleviate the problem.

President Strangway responded that unfortunately until the new construction was completed there would be a lack of parking spaces on campus. He hoped that by next year the addition of 985 spaces at the north end of campus would greatly improve the situation.

Adjournment

The meeting adjourned at 9.30 p.m.

Next meeting

The next regular meeting of Senate will be held on Wednesday, October 20, 1993.

Appendix A

AWARDS RECOMMENDED TO SENATE

Harold B. and Nellie BOYES Memorial Bursary-Bursaries totalling \$10,000 have been endowed by Winnifred E. Boyes to honour her parents Harold B. and Nellie Boyes. (Available 1993/94 Winter Session.)

Gladys Estella LAIRD Research Fellowships-Fellowships of \$6000 each have been endowed through a bequest from Gladys Estella Laird and are offered to students in Chemistry who simultaneously hold an NSERC, a UGF or a Killam Scholarship. \$2000 annually is provided to recipients during the second, third and fourth years of graduate study. Receipt of the full value of these awards is contingent on maintenance of eligibility. The fellowships are made on the recommendation of the Department in consultation with the Faculty of Graduate Studies. (Available 1993/94 Winter Session.)

Fred W. and Gladys E. LAIRD Scholarship-A \$1,000 scholarship has been endowed from the estate of Gladys Estella Laird in memory of Fred W. Laird to a student who is a resident of Nanaimo, British Columbia. (Available 1993/94 Winter Session.)

John Valentine CLYNE Bursary-Bursaries totalling \$3,000 have been endowed from the estate of John V. Clyne and are available to students in any year and Faculty. (Available 1993/94 Winter Session.)

Leonard S. KLINCK Memorial Fellowship-Fellowships totalling \$8,000 have been endowed by the late Dean Emeritus Blythe Eagles and Violet E. Eagles on the occasion of the 75th Anniversary of the University. The award is to honour Leonard S. Klinck, the first Dean of the Faculty of Agricultural Sciences (1914-1919) and second President of the University (1919-1944). The award is offered to graduate students in Agricultural Sciences and is made on the recommendation of the Faculty in consultation with the Faculty of Graduate Studies. (Available 1993/94 Winter Session.)

ROGERS Communications Inc., Scholarship-Scholarships totalling \$2,100 have been endowed by Rogers Communication and the Province of British Columbia for students entering the Electrical Engineering program in the Faculty of Applied Science. The awards are made on the recommendation of the Faculty. (Available 1993/94 Winter Session.)

Earle BIRNEY Scholarship in Creative Writing-A \$2,000 scholarship has been endowed by friends, colleagues and the Province of British Columbia to honour Earle Birney and to recognize his contribution to Canadian Literature. The award is offered to a student in the Department of Creative Writing and is made on the recommendation of the Department. In the case of graduate students, the award is made in consultation with the Faculty of Graduate Studies. (Available 1993/94 Winter Session.)

RIO Algom Scholarship-A scholarship of \$2,400 has been endowed by Rio Algom Exploration Inc. and the Province of British Columbia. The scholarship will alternate

10653

95 with the Faculty of Applied Science and the Faculty of Science beginning in 1994-95 with the Faculty of Applied Science. The award is offered to a student in second year with a program concentration in Mining and Mineral Process Engineering and alternately, to a second year student with a program concentration in Geological Sciences. The award is made on the recommendation of the appropriate Faculty. (Available 1994/95 Winter Session.)

Lily SCHAJER Memorial Bursary-A \$330 bursary, endowed in the memory of Lily Schajer, is offered to an undergraduate student in Mechanical Engineering. (Available 1993/94 Winter Session.)

WESTCOAST Energy Inc. - Jack Davis Scholarship in Energy Science-A \$2,400 scholarship has been endowed by Westcoast Energy Inc. in memory of the Honourable Jack Davis. The award is available to graduate students in the area of energy sciences. The award is made on the recommendation of the Faculty of Graduate Studies. (Available 1993/94 Winter Session.)

The following is an existing award for which changes were required at the request of the donor and the Faculty.

Existing Award # 2868 (Previously a scholarship) - STIKEMAN Elliott and Carswell Prize in Tax Law-A \$1,000 prize is offered by Stikeman Elliott, a Canadian law firm, and Carswell, a Canadian publisher, as a part of their National Award Program. The award is made to an outstanding student in tax law on the recommendation of the Faculty of Law and if appropriate, may be shared by two students. (Available 1992/93 Winter Session.)

Appendix B

FINAL REPORT OF THE AD HOC COMMITTEE ON ENVIRONMENT FOR TEACHING

1. INTRODUCTION AND TERMS OF REFERENCE

The *Ad Hoc* Committee on The Environment for Teaching was established by a motion approved by Senate on October 21, 1992. The preamble, and terms of reference were as follows:

Whereas The University of British Columbia is committed to ensuring high quality teaching,

And whereas the University has recently taken important steps in the matter of the evaluation and improvement of teaching, Be it resolved that the Senate establish an ad hoc committee to investigate the environment for teaching at this University.

In particular, the terms of reference of the committee shall be:

- 1. To define the important elements in the environment for teaching (e.g., physical, financial, contractual, etc.);
- 2. To investigate the positive and negative effects which these elements have on both undergraduate and graduate teaching at the University, in consultation with the Faculties, the Faculty Association, the Alumni Association, and the Alma Mater Society; and
- 3. To report back to the Senate, making recommendations if necessary concerning the environment for teaching.

2. A MENU OF ISSUES

The first thing that struck the Committee was the potentially vast scope for investigation. The Committee sought to distinguish between the teaching environment, the learning (both for faculty and students) environment and the intellectual environment. Ultimately the Committee decided that these distinctions were not useful, since teaching, learning and intellectual activity must all come together if students at UBC are to have the experiences promised by the University. The Committee preferred to make distinctions between operationally distinct aspects of the environment in which all these activities take place.

In their early meetings the Committee members focused their attention on attempting to identify a series of critical questions which they felt fell within a broad interpretation of their mandate and which appeared to command first attention. During the process these questions were gradually organized under five broad themes which appeared to form the teaching environment. These five themes include:

- 1. Recruiting, rewards and incentives
- 2. Teaching assessment and evaluations
- 3. Preparation for teaching
- 4. Curriculum
- 5. Physical environment

The following questions and issues were identified under each broad theme.

2.1 Recruiting, Rewards and Incentives

The pursuit of excellence in teaching begins with recruiting either proven or potentially high quality teachers who are then given the incentives to strive for excellence and the know-how and the support to make it possible. While it is not specifically stated, excellence in teaching and scholarly activity appear to

be considered as equally desirable attributes of faculty members. On the other hand, the Committee believes that there is a market bias which provides greater mobility through excellence in scholarly activity (research) than through excellence in teaching.

The Committee recognized that the reward and incentive structure for teaching and research was a delicate matter generally addressed by the Board of Governors on behalf of the University and the Faculty Association in a bargaining framework. At the same time the Committee recognizes that UBC has a declared mission of excellence in both teaching and scholarly activity and appears to have taken the position that these are to be recognized as equal partners in the promotion/tenure process. In keeping with this position of equality between scholarly activity and teaching, but mindful of the likely market bias in favor of research, the Committee identified four central questions as follows:

- 1. Do current hiring, promotion and tenure practices provide effective (equal) incentives for high quality (excellent) teaching? If not, how might the practices be changed?
- 2. Is the present system of rewards (merit, travel grants, scheduling of teaching assignments, summer support, etc.) for faculty members consistent with our apparent goal of equal emphasis for scholarly activity and teaching? If not, how might these be changed?
- 3. Does the present system adequately encourage innovative teaching at the Faculty or Department level? At the individual level? If not, what might be done to encourage more innovation in teaching? (If an excellent researcher is given more time off from teaching or service responsibilities to focus on scholarly activity, is the innovative teacher provided with similar opportunities?)
- 4. What changes might be made administratively to improve further the commitment to excellence in teaching at UBC. e.g., incentives for superior teaching, opportunities and rewards for innovative approaches to teaching, encouragement of attendance at Faculty Development Program events.

The Committee of Deans have formed a working group on "Teaching and Learning" and part of their mandate is to create an environment where teaching is rewarded, especially creative and innovative teaching. This working group has yet to file a report. Our Committee concluded that the issues raised under this theme should be forwarded to the Board and the working group.

The selection of teaching assistants (T.A.s) is a matter which requires some special attention. While faculty, including instructors, are expected at least to show potential for teaching excellence, the criteria for the selection of T.A.s is somewhat different. The role of T.A.s includes both a teaching activity and a learning experience and in some cases the candidate does not clearly show promise of teaching ability. Whether or not the T.A.'s own learning is progressing satisfactorily is not a matter of concern for the students in his or her class. From the point of view of those students, the quality of teaching is the important issue. Two features of T.A.s make them unique as teachers: they are all graduate students, and they are the only teachers on campus represented by a union. It would seem sensible therefore to suggest that both the Faculty of Graduate Studies and C.U.P.E. local 2278 be asked to have some input to the working group of the Committee of Deans.

2.2 Teaching Evaluation

The proper selection of faculty and the correct reward structures are pre-requisites to excellence in teaching. The next step is to monitor and evaluate the teaching to ensure the desired standards are achieved.

- 1. Are the processes for monitoring teaching (including T.A.s) adequate to detect problems and suggest remedies in a timely way?
- 2. If so, are these monitoring processes in fact being followed?

In 1991, Senate received the final report from their *Ad Hoc* Committee on Teaching Evaluation (The Evaluation of Teaching at UBC in 1991). The *Ad Hoc* Committee on Teaching Evaluation identified a number of concerns and made some 14 recommendations. The *Ad Hoc* Committee concluded that "It is now clear, however that the root problem is not inadequate evaluation of teaching, but inadequate action on what the evaluations reveal." (page 12). The Committee recommended "That all units give serious consideration to establishing committees whose function is to monitor the processes whereby teaching is evaluated and whose membership includes student representation." As a result a number of faculties and departments have formed committees to deal with teaching evaluations. The Committee also recommended that during the term of the Senate of 1993-96, there be established a new *ad hoc* committee on Teaching Evaluation (1990). Accordingly our Committee has concluded that teaching evaluation was receiving the attention it required.

2.3 Preparation for Teaching

Adequate monitoring and evaluations will only detect strengths and weaknesses. By themselves they will not remedy any detected problems. In some cases the identification of teaching problems (publicity of being known as a weak or poor teacher) may prompt some faculty members to improve their teaching. However in many cases the faculty member already wants to be a better teacher but does not know how to make the necessary improvements. Indeed the types of improvements necessary may not even be evident from the evaluations. What help does the university provide or could the university provide to improve the quality of teaching, including that of T.A.s?

- 1. Are there adequate resources to address teaching problems once they are detected?
- 2. How can the University help alleviate the communications problem of teachers whose native language is not English?
- 3. What can be done to help improve the way teachers articulate their knowledge to students?
- 4. Are there better programs and/or methods to train teachers (and if so, what are they)?
- 5. Do teachers need to be better trained to use the facilities and resources they have at their disposal?

The Faculty Council of the Faculty of Graduate Studies recently received a comprehensive report on issues of language proficiency and the ESL graduate student. The report included some important suggestions for providing help in acquiring language competency and we expect these may be followed up, with benefit not only to ESL student learners, but also to some T.A.s.

The Committee noted that the Centre for Faculty Development and Instructional Services already deals with, or is capable of dealing with, these sorts of issues. In fact there are a number of programs in place which deal with the issues raised. Accordingly the Committee elected not to pursue these issues but suggests that Senate refer these questions to the Centre's Advisory Board.

2.4 Curriculum

Excellent teaching with inadequate program or course content will not achieve the goals of our university. Therefore it is necessary to ensure the courses and programs are current and consistent with the mission of the university.

- 1. Are the current courses/programs consistent with the stated mission of UBC? If not, why? What can be done?
- 2. Are there systems in place at UBC to avoid (or minimize) unnecessary duplication of course offerings and promote joint ventures where they seem appropriate?
- 3. Are there systems in place to ensure our programs and courses are consistent with our stated mission?

In *Second To None*, the University's Strategic Plan document, one of the actions noted on page 12 is that "All academic units will review their substantive curriculum and mode of teaching to ensure that teaching objectives are being met". Additionally the University provides that "The regular process of departmental reviews each five years ensures that the commitment to excellence in teaching is maintained and that course content reflects the current level of world knowledge." These reviews are undertaken by external reviewers and these reviews should provide the necessary evaluations of programs. However these reviews are not always well publicized. Moreover the Senate Curriculum Committee, in conjunction with departmental curriculum committees, already deals with most, if not all, of the detailed curriculum matters. Our Committee therefore concluded that curriculum matters are already receiving the necessary attention.

2.5 Physical Environment

The final broad theme relates to the physical environment: does UBC have the physical environment for teaching which is most likely to help facilitate the achievement of excellence in teaching? This broad question prompted the Committee to consider a number of specific issues.

- 1. Are there some reasonably accepted criteria or benchmarks for classroom size and style (perhaps by year and type of program), and for lab space and equipment per student?
- 2. What steps have been taken, or could be taken, to improve data on teaching space needs and utilization so that different accounts of teaching space use do not conflict?
- 3. Is there presently a mismatch between our existing space and that which meets the "acceptable criteria" to serve our present needs?
- 4. Given current (and likely near term) financial conditions, what improvements can be made to improve the physical teaching environment at UBC? e.g., more, better, different space for individuals and groups on campus, better equipment, etc. Where can we get the "biggest bang" for the limited dollar?
- 5. Is the present system of allocating teaching space effective? If not, what can be done?
- 6. Is our present maintenance program (cleanliness, soundness of furnishings, etc.) adequate? If not, what can be done to improve it?
- 7. Is our present classroom/lab/study space upgrade and renovation program adequate? If not, what can be done to improve it?

Unlike the questions raised in the previous four areas, these questions did not appear to be ones which fell into the purview of established structures or committees on campus. Our Committee concluded we could make the most useful contribution by focusing on these issues. To this end, we sought to identify what other work had been recently done at UBC in the area of the physical environment for teaching.

3. THE PHYSICAL TEACHING ENVIRONMENT

We recognized that UBC had a strong commitment to teaching and scholarly activities and realized that much work had been done by other committees, albeit seemingly uncoordinated. The need to identify other committees on campus which were investigating, or had recently investigated, some aspects of teaching environment consumed much of our earlier time and efforts. It appears that UBC has a significant concern for the quality of teaching as we were able to identify two other committees which had recently focused on particular aspects of the physical teaching environment. These included:

- 1. The Classroom Committee (John Chase, Chair)
- 2. The Space Utilization Committee (Richard Spencer, Chair)

In addition our Committee became aware of several other committees recently formed or recommended to be established. However these other committees were not far enough into their work to provide any significant inputs.

Our Committee reviewed the reports from the other two committees noted above. We invited representatives from these two committees to meet with us to share their findings and conclusions. To this end we met with three representatives:

- John Chase (Director, Budget & Planning)
- Alvia Branch (Manager, Scheduling & Administration, Registrar's Office)
- Kathleen Beaumont (Manager, Space Administration & Planning, Campus Planning & Development)

In addition to concerns raised through their own committee work, the three representatives were invited to address the questions formulated by our committee and to discuss issues arising from those questions. In the process of these discussions, several of our questions were refined and amended. The following summarize these discussions but no attempt is made to attribute comments to particular people.

1. Are there some reasonably accepted criteria or benchmarks for classroom size and style (perhaps by year and type of program), and for lab space and equipment per student?

It was suggested that this broad question is best addressed as two separate questions which distinguish between "design standards" and "utilization standards". Question 1.1 deals with the former, while question 1.2 deals with the latter.

1.1 Are you aware of any "generally accepted" standards of classroom and lab size or style (shape)?

1.2 Are you aware of any "generally accepted" standards indicating optimal proportions of time for structured (e.g., lecture) and unstructured use of classroom and lab space?

On the first question we were advised that design standards do exist, but they are not "generally accepted" standards. Rather they are institution-specific standards. Some are better known than otherse.g., those from UCLA, MIT, Rensalaer Polytechnic have been written up in the literature. Apparently there has not been a lot of discussion of such standards in Canada.

On the second question the answer is "yes", at least for structured teaching use. The typical norms are 60% structured use for classrooms and 40% structured use for labs. These are the Council of Ontario Universities (COU) standards.

2. What steps have been taken, or could be taken, to improve data on teaching space needs and utilization so that different accounts of teaching space use do not conflict?

Is there a recognized way in which institutions assemble and manage data about classroom space? The answer is yes. The Campus Planning and Development unit at UBC now has a reasonably comprehensive space inventory (data base) for the University.^{*} It has been developed using the COU system of space classification and it is amenable to the use of a space standards formula which allows us to say whether we have "enough space". The formula uses a basic model for analyzing space which is virtually the same throughout Canada and the U.S. and it is informally recognized by the B.C. Ministry of Advanced Education, Training and Technology, in assessing needs province-wide.

3.1 Is there presently a mismatch between our existing space and that which meets the "acceptable criteria" to serve our present needs?

^{*} Instructional Space Utilization Report, Winter Session 1991/92, October 19, 1992, Campus Planning & Development.

According to the utilization formula, the universities in B.C. collectively do not have enough space, but the shortfall is worse at the University of Victoria and SFU than at UBC. In fact, if UBC builds everything it wants to build over the period 1991-96, UBC will have a 4% excess according to the formula. (Apparently it is for this reason that the Ministry has not been receptive to requests from UBC for more space). However according to our internal analysis, UBC does have a deficiency-a deficiency in the quality of space, rather than its quantity. If, in addition to planned new building, UBC was also able to demolish currently identifiably sub-standard space, UBC would, in fact, have a shortfall of structured teaching space of 16% in twenty years. Consequently, the case which UBC needs to make is the case for space renewal. UBC has made some progress in the past two years in providing data to justify requests for renewal and the Ministry has begun to listen. As a consequence, there may be some possibility of getting new capital funding in this vital area.

3.2 To what extent do you see a mismatch at UBC between an "optimal" configuration of teaching space and our current space configuration?

Whether UBC has or has not a shortfall in the quantity of space is separate from the matter of space configuration. There is no unsatisfied demand for structured teaching space (i.e., no instructor has ever been unable to have classroom space somewhere on campus at some reasonable time). However there is a potential for conditioning in that departments and faculties which know certain sizes (or types) of classrooms are in short supply will plan for different section sizes to optimize classroom availability. This raises a concern that physical space limitations, rather than pedagogical considerations, may drive the class size. The current budget restrictions may also affect the matching of desired classrooms with available space. For example, will multi-sectioned courses have fewer (and therefore larger) sections in response to budget cutbacks?

While there may not be an overall unsatisfied demand for space, there is frequently a mismatch between room capacity and the sizes of classes (we often find smallish classes in rooms bigger than they need), between the desired and the available times, between the desired and available configurations (e.g., seminar, lecture, caserooms, etc.), and between the desired and available locations. And sometimes it is not easy to find rooms for the particularly big classes, certainly not at preferred times.

For some purposes it is also useful to distinguish between a "global" view of configuration and a "local" one. Globally (i.e., looking at the entire campus) UBC is facing a problem because the campus plan now extends as far as Thunderbird Drive and that means we could potentially exceed the maximum standard (ten-minute) walking time between classes. It is clear that UBC needs a better geographic distribution of classrooms across campus. UBC also needs a better distribution of class and room sizes across campus. Locally (i.e., considering the configuration of individual rooms), one finds that people request specific rooms (because of the configuration, the equipment they contain or the condition of the room). This can create allocation problems, but the situation could, in many cases, be improved by making low cost local modifications (e.g., by adding equipment) to existing classrooms.

What is ultimately used as an optimal configuration for UBC has to take account of the great variety of needs across the diverse campus and that will raise a lot of other issues. For example, space is particularly tight at certain times (both certain days and certain hours). One solution might be to extend the hours at which classes are scheduled-there is a Deans' committee currently considering this matter. While extending hours for classroom use may initially appear to be an obvious and simple solution, such extension may well prompt extensions in office hours for support staff, more open hours for facilities such as the cafeterias and increased security costs. There is also consideration of whether UBC might move to a trimester system, thereby extending the time frame for using classrooms. This would clearly have a major impact on all parts of our academic life, including both teaching and the pursuit of scholarly activities.

During our investigations, we became aware of the priorities for booking teaching space. It is obvious that the structured degree teaching requirements receive first priority. This frequently creates difficulties for the unstructured learning space requirements and for the structured non-credit teaching requirements. If UBC is to make a major commitment to non-credit activities, a greater priority must be given to their (frequently "off-schedule") space requirements.

It also appears to be the case that our present classroom configurations do not have a lot of flexibility. We need to recognize that what we build now is going to be in use for at least fifty years and we need to maximize flexibility.

4.1 Given current financial conditions, what physical improvements can be made to improve the physical teaching environment at UBC? e.g., more, better, different space for individuals and groups on campus, better equipment, etc. Where can we get the "biggest bang" for the limited dollar?

It appears that we need to do a lot of everything. If UBC had unlimited resources, for example, it should (according to the experts) tear down the existing classroom space in the Buchanan Building and rebuild it.

Upgrading is very important. And it's important to recognize that the Ministry appears to prefer to fund classroom space rather than research space. Upgrading classroom expenditure is classed as part of the Minor Capital budget and we were advised that \$750,000 has been set aside from the budget for 1993-94 for some upgrading.

Equipment costs are included in the Academic Equipment budget and \$250,000 has been set aside for 1993-94 for academic equipment for classrooms. That is not a lot of money when seen in the larger context.

We believe that a minimum equipment requirement should be an overhead projector in every classroom and we don't even have that everywhere. Equipment to allow us to make use of new technologies can be very expensive. We also need to think about such equipment in new classroom space. UCLA sees this as a million-dollar-a-year problem for ten years and has undertaken a major needs survey to find out how much high tech equipment is needed and where. At Windsor, which has only a hundred classrooms, six have been targeted for high tech equipment. There are a number of issues to be considered here-for instance, what's the impact of the high tech classroom? Does it give better results? Does it raise expectations in such a way that people spurn traditional low tech approaches, even though they may still be effective? What are the estimated costs of a reasonable and consistent upgrading program?

4.2 Is there an area in the whole complex of issues collectively labeled "teaching space issues" where you think big gains can be made for small outlay (of either dollars or human energy)?

One simple suggestion was to ensure that basic equipment, such as an overhead projector, is available (and in good operating condition) in every room.

Similarly fixing broken furniture would appear to have a high payback for a limited expenditure. (When the Registrar's office staff learns of broken furniture they advise Plant Operations and decrease the size capacity of the room to reflect the lost furniture. Repairs are not quickly done and people then move other furniture in, thereby changing the capacity of some other room and compounding the problem.)

It was also suggested that handicapped access urgently needs improving in some buildings, but we have no cost estimates for this upgrading.

5. Is the present system of allocating teaching space effective? If not, what can be done?

The answer is no. The respective merits of distributed (or decentralized) and centralized classroom space planning and control have be discussed but no decision has been made. One possibility would be to have separate buildings that house classrooms and nothing else. The other view-the decentralized approach-is what we have always done at UBC. This decentralized approach is characterized by the existence of too many design committees, with little or no centralized planning. As a consequence, we have conflicts. Their seriousness varies depending on the participants and on what the dispute is about. The SIS system is the tool whereby classroom allocation is managed at UBC. If space is listed on that system, then the Registrar's office gives first choice of space to the Department or Faculty in which the space is located and subsequently makes it available campus-wide. It is possible to restrict the use of a particular space to a given Department. But if space is not put on the Registrar's system, it is lost to general campus use. Such loss has a significance which goes beyond that of providing access to teaching space: it means that the Space Planning and Administration people have no data about such space and therefore are impeded in demonstrating needs for space to the Ministry-which funds classroom acquisition for degree courses (although not for non-credit offerings).

Sometimes the claim of ownership is not based on territory so much as on the fact that a particular time table may be used. Programs in the Faculty of Commerce and Business Administration, for example, do not use the standard time tables, so it is very difficult to schedule courses in Angus from other faculties which fit in with the Commerce classes.

New space planning brings its own unique difficulties. Sometimes new space is considered by the people in whose building it is located as their own space (in some cases this has even extended to the notion of charging rent for the space). From an overall system perspective, there is often difficulty in getting teaching space in new buildings on to the Registrar's system, because people argue that it should be under the control of the department which "owns" the new building.

In addition to the new space planning and space allocation issues, there are disparities in the provision of services which exacerbate disputes over classroom "ownership". Some Faculties have classrooms which are very well serviced (IRC, Education and Commerce all have their own A-V staff), and others are not. Psychology, for example, has no classrooms and if psychology instructors teach classes in a building which is not properly serviced for A-V, the department may have to purchase service from University Media Services. At the same time, individual departments or faculties which have funded superior equipment are reluctant to make it available to other units on campus since there is no simple means to share costs.

There is a need for a reaffirmation of the UBC policy with respect to the ownership of teaching space and the equipment included.

- 6. Is our present maintenance program (cleanliness, soundness of furnishings, etc.) adequate? If not, what can be done to improve it?
- 7. Is our present classroom/lab/study space upgrade and renovation program adequate? If not, what can be done to improve it?

The short answer to both questions is no! The single most important problem facing UBC is the fact that we have allowed the stock of existing classrooms, study space and labs to deteriorate very badly and we are faced with having to fix them at a time of very tight resources. As an example, the cost of upgrading just one lecture theatre in the Biology building has been estimated at \$500,000. Moreover, the consideration of whether to upgrade a room involves a large number of related considerations-is the room in a building which still has a reasonable life expectancy? If so, what else does the building need for the restoration of the classroom to be properly useful? Does the equipment proposed for the renovated room complement or needlessly duplicate equipment elsewhere in the building? What does it imply for upgrading elsewhere? Clearly, in this context, the \$750,000 allocated for 1993-94 is obviously insignificant. In fact the amount requested for Minor Capital Budget was \$84 million and only \$15 million was received. Obviously the total bill for needed classroom upgrading and maintenance is astronomical. Therefore the establishing of priorities for classroom space renewal and maintenance is very important.

We have a Master Plan for almost every aspect of campus operation except teaching space. (And, indeed, the very rationality of the overall Campus Plan has, in ignoring classroom needs, created a situation of not infrequent crisis management for units like Housing and Conferences.)

4. SOME CONCLUSIONS

One of the visitors said, "We have now explored these issues long enough. We need to address them. The *Ad Hoc* Committee can help in this (a) by providing for Senate (and the academic community) a fuller picture than they appear presently to have of the complexity and urgency of the issues involved, and (b) perhaps helping in the provision of the kind of data needed by planners regarding pedagogy and space usage". Our Committee tends to agree with these observations. We are convinced by the evidence supplied that the current state of teaching space at UBC reflects many years of neglect and the overall cost to bring our physical teaching space up to a level consistent with excellent teaching is staggering. Whether the percentage of current teaching space which is substandard is 10% or 20% is not the important issue: even 10% represents a staggering capital cost. The specialist committees already existing are well equipped to handle questions focusing on the physical aspects of classrooms construction standards, acoustics, location, utilization, etc. and now need the support of the academic units to develop planning processes and set priorities.

Our Committee has no illusions about our current financial capacity. Perhaps because of this shortage of funds we see a critical need to examine the processes followed for new space development, space renewal and the addition of equipment to existing space. It is essential we receive the greatest potential benefit from the scarce dollar and that the academic community have a strong voice in how these funds are invested. We believe that faculty members can make significant contributions to the decisions that must be made concerning our teaching space and need a process to ensure this happens.

We became aware, late in our deliberations, of the establishment of an Advisory Committee on Teaching Space, a sub-committee of the President's Advisory Committee on Space Allocation. This Advisory Committee has representation from the academic community, both faculty and student representation. The terms of reference for this Advisory Committee (attached as Appendix) appear to cover virtually all of the points raised under section 2.5 (The Physical Environment). While this Advisory Committee has only recently started their work, we are advised that they plan move quickly to address the issues. It is obvious that there would be considerable (and unnecessary) duplication of efforts with our Ad Hoc Committee. Therefore we are recommending that the issues raised in our report be forwarded to this new Advisory Committee on Teaching Space.

5. **RECOMMENDATIONS**

Our Committee recommends that:

- 1. Senate recognize the critical importance of the issues relating to the physical teaching environment at UBC and the urgent need for action relating to these issues. Specifically,
 - a. the development, with input from the academic community, of a Master Plan for teaching space at UBC,
 - b. clarification of the policies on the management of classrooms (the issue of centralized or decentralized responsibility),
 - c. resolving the uneven, and sometimes inadequate, provision of basic teaching equipment by providing a minimum standard of equipment for all classrooms and labs,
 - d. developing an ongoing budget for the maintenance and renewal of existing teaching space, and
 - e. investigating the feasibility of developing some space for creative and innovative teaching opportunities at UBC.
- 2. a. Senate invite the Advisory Committee on Teaching Space to pursue the matters identified above in such a way as to develop an immediate resolution.

- 2. b. Senate forward a copy of our Report to the Advisory Committee on Teaching Space and that they be invited to table a copy of their report with Senate.
- 3. Senate forward the issues raised under item 2.1 (Recruiting, rewards and incentives) to the Working Group On Teaching and Learning, Committee of Deans, and that the Vice-President, Academic be asked to provide Senate with a report from this Working Group on or before September, 1994.
- 4. Senate forward a copy of our Report to the other relevant Committees on campus who are presently addressing issues relating to the teaching environment, in particular to the Advisory Board of The Centre for Faculty Development and Instructional Services and to The Board of Governors, and that the Advisory Board of The Centre for Faculty Development and Instructional Services be invited to provide Senate with a copy of its annual report.
- 5. Senate discharge the Ad Hoc Committee on the Environment for Teaching.

Report Appendix: President's Advisory Committee on Teaching Space

March 23, 1993

Terms of Reference:

As a sub-committee of the President's Advisory Committee on Space Allocation:

- 1. To examine the need for teaching space^{*} and recommend in general terms the number, size, type and location of the space required.
- 2. To examine and recommend on the disposition of existing teaching space and the provision of new teaching space.
- 3. To advise on the allocation, management and use of teaching space.
- 4. To develop and recommend standards for classrooms and seminar rooms.
- 5. To advise on appropriation priorities for upgrading of existing classroom and seminar room space.

Recommendations will be forwarded to the President via the Chairman, President's Advisory Committee on Space Allocation.

Committee Membership:

- Director, Office of Budget and Planning, Chair
- Registrar
- Associate Vice President, Information and Computer Systems
- Campus Planning and Development (1)
- Plant Operations (1)
- Representation (1) from each of
 - o Humanities
 - o Health Sciences
 - o Physical Sciences
 - o Social Sciences
- Student (1)

^{*} Includes all types of instructional space, including among others lecture rooms, seminar rooms, laboratories, and studios.

Background:

That UBC's classrooms and seminar rooms are in a deplorable state is widely acknowledged. Addressing that situation led, two years ago, to the establishment of two committees. The first was charged with addressing issues relating to the utilization of instructional space. The second to address the need for appropriate furnishings, furniture and media equipment in each classroom. Both committees were initially hampered by the absence of an information base adequate to assess current conditions, develop future plans and assign priorities. In particular, the following is required:

- 1. <u>Classroom standards.</u> These should both define the expectations common to all classrooms and seminar rooms (including expectations regarding hearing and physical disability access) and establish a hierarchy of classroom standards differentiated on the basis of the information technology to be provided within them.
- 2. <u>Classroom master plan.</u> An identification of the number, size, location and information technology level of classrooms needed throughout the campus.
- 3. <u>Classroom Audit.</u> An assessment of each existing classroom including:
 - architectural features i.e. physical characteristics of the classroom which affect its assignment or use
 - electrical/mechanical systems
 - air quality
 - acoustics
 - media equipment
 - access for the physically impaired
 - furniture
 - furnishings
- 4. <u>Building Audits.</u> To provide assessments of the individual components and overall quality of those existing facilities which accommodate classrooms. The building audit will help identify whether investments in the building including its classrooms is justified and over what period.
- 5. <u>Instructional Space Utilization Surveys.</u> To determine usage of existing instructional space and, therefore, serve to highlight pressure points which need to be addressed in future capital and renovation plans.

Items 1 and 2 have not been considered. A modified version of item 3 has been undertaken; however, electrical/mechanical systems, air quality and acoustics were not assessed at all while only a limited number of factors affecting the physically impaired were explored. Building audits have been and will continue to be undertaken. Instructional space utilization surveys are being undertaken with results reviewed on an annual basis.

To address these and other relevant concerns, two committees were established. The first, chaired by Dr. Richard Spencer, Registrar, has been examining the utilization of all instructional space. Their review has provided an assessment of current utilization patterns, a basis for considering time tabling changes which would improve utilization, and a limited assessment of the extent to which current classroom sizes and locations are inhibiting the use of alternative section sizes and methods of instruction.

The second committee chaired by Dr. John Chase, Director, Office of Budget and Planning, has undertaken an assessment of the physical state of each of the University's classrooms, including furnishings, furniture, media equipment, etc. In both cases, activity to date has been primarily operational. The need now is to take the information developed and apply it to the formulation of standards, plans and priorities in the future. Terms of reference for a new committee are set forth in the introduction. With their acceptance and determination of the composition of the committee, the two existing committees will be disbanded.