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The new housing development. Street in front is Fairview Crescent.

Expo helps pay for UBC housing

A joint agreement between the University and the Expo 86 Corporation means that an additional 780 students will have access to affordable housing earlier than originally planned.

Under the agreement, which will see the construction of 187 townhouse units, Expo 86 will lease the entire development for one year from November, 1985, to house individuals who will come to Vancouver to staff international pavilions at the 1986 World Exposition. When the exposition closes, the units, located on the east side of the campus, will be available for student

UBC President George Pedersen said the joint project would have both short and long-term benefits for UBC and its student

"Expo's financial contribution enables the University to add immediately to its ock of on-campus residence accommodation thereby improving accessibility for out-oftown students. On a long-range basis, Expo's support makes the development more secure financially. It allows the University to continue planning future housing by redeveloping the nearby Acadia Camp housing site, much of which is still occupied by housing units brought to the campus after the Second World War."

Patrick Reid, Commissioner General of the 1986 World Exposition, said the joint project typifies the long-term benefits of Expo 86.

Prospective participants at Expo 86 have persistently asked us where their staffs can be housed in pleasant, secure, inexpensive surroundings where there can

be an international community atmosphere as well as a local, youthful one. The best of all possible answers has now been combined at the University of British

University, Science and Communications Minister Pat McGeer described the UBC-Expo housing agreement as "innovative," and as a tangible symbol of Expo's

By guaranteeing paid occupancy for a full year and thereby ensuring the financial viability of the project, Expo 86 has been instrumental in bringing 187 units of affordable student housing on stream far earlier than originally planned. Students from this province, other parts of Canada

and from around the world will be able to take advantage of comfortable, affordable housing as a consequence of this agreement. It is a mutually beneficial relationship and one of which the University of B.C. and Expo 86 can be

The \$10,390,000 construction contract on the two- and three-storey townhouses, that will accommodate groups of four, five and six students, has been awarded to the Coquitlam firm of Gauvin Construction Ltd. Work on the 4.5-acre site adjacent to existing Acadia Park housing on the east

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Faculty gets zero again

For the second year in a row, members 1 "This has not been the case at U of UBC's Faculty Association have agreed to a contract settlement that provides for no salary increases and no scale increments or merit adjustments.

As a result of the settlement, approved in August by mail ballot, 1984-85 salaries of faculty members will remain at 1982-83

Faculty Association president Prof. Elmer Ogryzlo said that to the best of his knowledge, UBC was once again the only Canadian university at which professors would receive no salary increase.

"Although university faculty elsewhere may have agreed to a salary cut they have ... received their normal career progress increments," Prof. Ogryzlo said.

where, in the last two years, the loss of increments has resulted in sacrifices by our faculty members which we believe are well beyond those made by every other university in Canada.

"In agreeing to forego our regular salary increments we have taken a step that has been taken by no other major public sector group in B.C."

Continued underfunding of the. University, Prof. Ogryzlo said, "will inevitably weaken our ability to retain the best faculty. The problem can only become more serious as we see faculty salaries increasing elsewhere in Canada and the

1st-year students fail to show up

First-year registrations are down 700 at UBC this year, and this has caused a drop of 2 per cent in total enrolment.

Although enrolment in other years is up, the overall daytime total as this week began was 24,252, down 517 students from the total at the same time a year ago of 24,769

Registrar Ken Young said he expected a final daytime enrolment of 25,660, which would be 500 fewer students than last year.

He said the drop in enrolment would mean a drop in tuition fee revenue of about \$600,000.

First-year enrolment stood at 3,273 Monday morning, down 700 students or 17.6 per cent from the same time a year ago. The total is 13.8 per cent below UBC's quota for first year of 3,800 students.

Mr. Young said that about one-third of the students accepted for first year failed to register, compared with a usual "no-show" rate of 20 per cent.

Enrolment at first-year level is also down this year at Simon Fraser University and the University of Victoria.

The general state of the provincial economy, the change in provincial financial aid that turned grants into loans, and higher tuition fees are all seen as contributing factors in the decline in first-year enrolment.

Mr. Young said UBC's Student Counselling and Resources Centre would be contacting many of the "no-shows" next month, attempting to find out why so many accepted did not register.

In the Faculty of Arts at UBC, which last year registered 1,546 new first-year students, the quota this year was 1,500. The number who actually registered was 1,280, although 1,966 'authorization to register' forms were issued.

In Science, the story was similar. The quota was 1,400, authorizations totalled 1,830, and enrolment stands at 1,275.

On a percentage basis, the biggest change from last year to this is in physical education, which had 38 new first-year students last year. This year, the total is 18.

Computing Centre holds open house

The Computing Centre is holding an Open House in their machine room on Thursday, Sept. 20, from 12:30 - 3:30 p.m.

Visitors will be able to see the mainframe computers, the laser printers and other equipment, and staff members will be on hand to answer questions.

Starting point is Room 100, Computer Sciences Building. Call 228-4783 for more information.

3 department heads appointed in Forestry

Three department heads have been appointed in UBC's Faculty of Forestry the first full (five-year) appointments following the 1982 decision to departmentalize the faculty.

Dr. J. Harry G. Smith, a 34-year member of the UBC faculty, has been confirmed as head of the Department of Forest Resources Management; Dr. Denis P. Lavender of Oregon State University joins UBC as head of the Department of Forest Sciences; and Dr. J. David Barrett of the Forintek Canada Corp., a forest-product research firm on the UBC campus, joins the faculty to head the Department of Harvesting and Wood

Dr. Smith is a UBC graduate who earned an honors Bachelor of Forestry degree in 1949 and a Master of Forestry degree the following year. He received his Ph.D. degree from Yale University in 1955.

He joined the UBC forestry faculty in 1950, headed the forest management division from 1980 to 1982 and has served as acting head of the forest resources management department since it was formed in 1982.

His principal areas of research are tree growth and yield and tree-ring analysis, a method of studying the growth rings of a tree cross-section to determine the effects of climate and responses to treatment. He helped introduce the use of x-rays in tree-ring analysis and initiated new ventures such as the use of computers to simulate tree and forest growth.

He was president of the Canadian Institute of Forestry in 1980 and has served as a consultant to several international organization as as well as B.C. companies

Forestry faculty dean Dr. Robert Kennedy said the appointment of Dr. Lavender as head of the Department of Forest Sciences would strengthen undergraduate and graduate programs in silviculture. "As an expert in forest renewal," Dean Kennedy said, "Dr. Lavender is familiar with B.C. problems through consultation roles with the B.C. forests ministry."

Dr. Lavender earned a bachelor's degree in forest management from the University of Washington College of Forestry in 1949, a master's degree in the same subject from Oregon State College in 1958 and a Ph.D. in plant physiology from Oregon State University in 1962.

He has been associated with the forestry school at Oregon State University since 1961, with research interests in seeding and seedling physiology and forest nursery

He was the co-author of a report on improving reforestation and forest productivity in northern California and southern Oregon. This 10-year, \$15 million research program is now under way.

Dr. Lavender, who will take up his UBC duties on Jan. 1, 1985, has been active in professional and scientific organizations. He is a former president of the Northwest Scientific Association and was elected a fellow of the Society of American Foresters

Dr. Barrett, the new head of the Department of Harvesting and Wood Science, will contribute by enlarging activities in harvesting and wood science "to meet the demands of the forest industry for improved productivity and value-added products," Dean Kennedy said.

Dr. Barrett earned a bachelor's degree in forest engineering from UBC in 1965 and a Ph.D. from the University of California at Berkeley in 1973. His research is on the mechanical and physical properties of wood and reliability of wood products.

He has had a long association with the Western Forest Products Laboratory of the federal government and its successor. Forintek Canada Corp., the privatized version of the laboratory located on the UBC campus.

While serving as manager of the wood engineering department and associate

director of the laboratory at Forintek, Dr. Barrett has also been involved in teaching and research programs in the UBC forestry faculty and the Department of Civil Engineering. He takes up his new UBC post on Dec. 1.

Among his awards for research contributions are the Wood Award in 1970 of the Forest Products Research Society for outstanding research, and the 1977 Markwardt Award presented by the Society for Testing and Materials.

He shared the latter award with Prof. Richardo Foschi, who was then a colleague at Forintek and who recently joined UBC's civil engineering department.

Lord Byng biography best in '83

Canadian writer Jeffrey Williams has been named the winner of the University of British Columbia's Canadian Biography Award for 1983. The award, given annually since 1952, is for Mr. Williams' book on the life of Lord Byng.

Byng, a British army general in World War I, was commander of the newly-formed Canadian Corps which captured Vimy Ridge. He served as Canada's Govenor-General from 1921 to 1926.

The UBC biography medal is given each year for the best book by or about a Canadian published in the previous year. Mr. Williams' book, entitled Byng of Vimy, was also chosen for the Governor-General's Award for Non-Fiction.

Canadian Literature, a UBC-based literary magazine, said in announcing the award that Mr. Williams' book is a "first-rate account of Byng's life, with a lucid picture of the pressures which beset the man in war and peace. It could be characterized as restorative biography because it clearly advances the case for Byng in his disputes with Mackenzie King; and described as resting on sound research by an author who thoroughly enjoys his subject."

Williams, who spent much of his life as a Canadian soldier, says he wrote the book for two distinct audiences-the military profession and the general public.

The author is presently living with his

Housing

Con't from Page 1

side of the campus is expected to begin immediately.

UBC's Department of Student Housing and Conferences is one of five UBC units called ancillary services - self contained financial units which operate on an annual break-even basis with revenues paying for the replacement and upgrading of facilities and the repayment of debt.

UBC's long-range objective is to provide housing for 25 per cent of its student body. When complete, the Expo 86-UBC development, will mean that UBC will be able to provide housing for about 20 per cent of its students. Present residence capacity is almost 4,000 students.

Dr. Neil Risebrough, Associate Vice-President Student Services, told a news conference Sept. 13 that total cost of the new development, including furnishings, would be about \$14.3 million.

He said revenue from Expo would be \$4.4 million, of which about \$1.5 million would be profit to the University.

Dr. Risebrough said students will pay rent of about \$250 a month when they move in in the fall of 1986, compared to about \$460 a month that Expo tenants will pay.

He said the development had been designed so that it could be converted to family housing sometime in the future.

DEADLINES

Faculty members wishing more information about the following research grants should consult the Research Services Grant Deadlines circular which is available in departmental and faculty offices. If further information is required, call 228-3652 (external grants) or 228-5583 (internal grants).

October (application deadlines in brackets)

- Agriculture Canada
- Extramural Research Grant (31)
- · Alberta Forest Service
- Forest Development Research Fund Grant
- Alberta Heritage Fdn. for Medical Research Medical Research Fellowships (1)
- American Chemical Society: PRF
- Research Type AC (1)
- American Lung Association
- Training Fellowships (1)
- Trudeau Scholar Awards (1) · Arthritis Society
- Associateships & Assistantships (15)
- Fellowships (15)
- Research (15)
- · Association for Canadian Studies Intercultural/Interregional Enrichment (15)
- AUCC: International Relations
- Canadian Studies Visiting Prof in Japan (1) - International Scholarships Post Doctoral (31)
- · B.C. Cancer Foundation - Travel Grant for Post-doctoral Fellows (15)
- B.C. Health Care Research Fdn.
- Development & Training Fellowship (1)
- Research (1)
- Research Scholar Award (1)
- B.C. Heart Foundation - Clinical Fellowship in Cardiovascular Disease (1)
- · B.C. Heritage Trust
- Historical Archaeological Program (1)
- · Cambridge Univ. (Peterhouse)
- Research Fellowships (25)
- · Canada Council: Killam Program
- I.W. Killam Memorial Prize (15)
- Killam Research Fellowship (15) Canada Council: Writing/Public.
- Translation Grant (15)
- · Canada Mortgage & Housing Corp. Research Grants Type A (to \$3500) (26)
- Canadian Commonwealth Schol/Fell. Committee
- Research Fellowships (31)
- Visiting Fellowships (31)
- · Canadian Cystic Fibrosis Fdn. Fellowships for Training and Research (1)
- Scholarship (1)
- Educational Research Inst. of BC (ERIBC) – ERIBC Major Research Grant (1)
- · General Motors Cancer Res. Fdn. - Research Prize (2)
- Guggenheim Memorial Foundation - Guggenheim Fellowships (1)
- Publications Assistance (1)
- IMASCO-CDC Research Foundation
- Industry Trade and Commerce - Technological Innovation Studies (31)
- Univ Course Development Grant (31)
- International Development Research Centre Education Research Awards Program (30)
- International Union Against Cancer
- Eleanor Roosevelt Cancer Fellowships (1) International Fellowships (1)
- · Japan Society for the Promotion of Science
- JSPS Fellowship for Research in Japan (1) • Japan World Esposn. Commemor. Fund - International Projects (31)
- · Iuvenile Diabetes Fdn. (US)
 - Career Development Award (1) - Postdoctoral Fellowships (1)
- · Kidney Foundation of Canada
- Research (15) MRC: Grants Program
- Program Grants (1) - Travel (1)
- MRC: Special Programs
- Research for Dyskinesia & Torticollis (1) Symposia & Workshops (1)
- · Multiple Sclerosis Soc. Canada
- Career Development Grants (1)
- Postdoctoral Fellowships (1) - Research (1)
- Research Studentships (1) National Defence Canada
- Military and Strategic Studies Program (10) • National Inst. of Education (US)
- NIE Research Grants (6)
- National Kidney Foundation (US)
- Research Fellowships (1) · National Research Council of Canada

- The Steacie Prize (4)
- **NSERC:** Fellowships Division
- University Research Fellowship (11)
- NSERC: Intl. Relations Division CIDA/NSERC Research Associates: LDC's
- Exch: Braz, Czech, Jap, Bulg, UK, Suisse, Ger (15)
- International Collaborative Research (15)
- International Scientific Exchange Awards
- NSERC-Royal Society Exchange (15)
- NSERC: Major Installation
- Major Installation (1) Osgoode Society
- Fellowship in Canadian Legal History (15)
- Bora Laskin Fellowship in Human Rights
- Canadian Ethnic Studies Program: Professor-
- Canadian Ethnic Studies: Research (15)
- SSHRC: Fellowships Division Faculty Leave Fellowships (1)
- Jules & Gabrielle Leger Fellowship (1) • SSHRC: Intl. Relations Division
- Aid to International Secretariats (1)
- Bilateral Exchange: China (1) Bilateral Schol. Exchange: Japan &
- Bilateral Scholarly Exchange: France (1)
- Grants to Canadian Scholars to Lecture
- International Collaborative Research (1)
- Visiting Foreign Scholars (1) SSHRC: Research Communic. Div.
- Aid to Occasional Conferences (30) SSHRC: Research Grants Division
- Research (15)
- · St. John's College
- Commonwealth Fellowship (1)
- University of British Columbia UBC-NSERC Equipment Grant (1)
- UBC-SSHRC Travel Grant (10) · University of Southern California
- The John & Alice Tyler Energy/Ecology Award (15)
- University of Tasmania
- University Research Award (31) • Wesbrook Society (UBC)
- Project (1)
- Woodward's Fdn. (Mr. & Mrs. P.A.) Foundation Grants (1)
- · World Wildlife Fund (Canada) General Research (1)

Note: All external agency grant requests must be signed by the Head, Dean, and Dr. R.D. Spratley. Applicant is responsible for sending application to

Librarianship school gets longername

A plea for "simplicity and elegance" as criteria to be considered by academic units that are considering changes of name was entered at the Sept. 12 meeting to the University Senate.

Prof. Jon Wisenthal of UBC's English department, commenting on a proposal by the Faculty of Arts to change the name of its School of Librarianship to the School of Library, Archival and Information Studies, said it was "unfortunate" that each time a name change came before Senate, the new name was several times as long as the old and tended to sound "a little less

He urged other academic units considering name changes to "consider simplicity and elegance as criteria," a remark that brought applause from senators.

In recommending the name change for the School of Librarianship to Senate, Dean of Arts Robert Will said the new name more accurately reflects the programming and courses offered in the school.

He said archival studies had been added to the school's offerings in 1981 and that presently, 41 of 69 schools of librarianship have the words information science or studies in their title.

In addition to preparing students for work in public, private and corporate archives, new offerings prepare students for careers in the information industry, which includes publishers, broadcasters, software writers, systems planners, information consultants and records managers.

The motion to change the school's name passed without debate.





These 12 UBC athletes, all participants in the Olympic Games in Los Angeles, were the luncheon guests of UBC's Board of Governors on Sept. 11 at Norman MacKenzie House. Congratulated on their efforts were Pat Turner, Paul Steele and Tricia Smith, rowing; Hugh Fisher, kyak; Bruce MacPherson and Rob Smith, field hockey; Ian Newhouse and Simon Hoogewerf, track events; Helen Chow, swimming; Audrey Vandervelden, volleyball; Don Brien, canoeing; and Rich Hansen, who took part in the wheelchair Olympics.

Financial statements revised

An expanded and more detailed set of financial statements on UBC finances in the 1983-84 fiscal year will be available to a wider campus audience this month.

The financial statements in their revised format were approved by UBC's Board of Governors when it met in August. All that stands in the way of their being issued publicly is the receipt of an audit certificate from the provincial auditorgeneral, who is satisfied that the statements present fairly the financial position of the University, the Board was told.

Bruce Gellatly, UBC's vice-president for administration and finance, said the revised format of the statements conforms to standards developed by the Canadian Association of University Business Officers, a national organization of university administrative officers.

Mr. Gellatly plans to expand distribution of the statements this year to include all UBC deans and department heads. A copy will also be available in the University Library for viewing by any member of the University community and the public.

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The series of schedules and statements that make up the UBC Financial Statements account for revenues and related expenditures under separate fund headings in accordance with objectives specified by the donors, limitations imposed by sources outside the University and determinations made by the Board of Governors.

A balance sheet — Statement 1 — is a

consolidated statement of all UBC funds. The schedules and statements that follow provide the reader with details on income and expenditure in such areas as research, ancillary enterprises, capital spending, student loans and endowment funds.

Also included is a schedule of general purpose operating expenses which shows how much each faculty and department of the University spent on such things as salaries and benefits, supplies and expenses, travel and Computing Centre charges.

Here are some highlights from the 1983-84 financial statements.

• UBC's gross income from all sources was \$344 million. This figure includes general purpose operating income of \$214 million.

• Exclusive of benefits, UBC's total salary bill in 1983-84 was \$214 million and included just over \$110 million for academic salaries, almost \$91 million for support staff salaries and \$12.5 million in payments to students. Expenditures on scholarships, fellowships and bursaries to students totalled just over \$5 million and expenditures on utilities for the campus totalled almost \$8.5 million.

Universities face more unionization of TAs

Budgetary crises, reorientation of university programs and priorities and other shocks to the university system will raise anxiety levels among Canadian graduate students and lead to further unionization of teaching assistants in the future.

This is the major conclusion of a paper entitled "Teaching Assistant Unionization: Origins and Implications," written by UBC's dean of Education, Daniel Birch, and Robert Rogow, a member of SFU's Faculty of Business Administration. The article appeared in a recent edition of the Canadian Journal of Higher Education (Vol. XIV, no. 1, 1984).

In a survey covering the period 1974 to 1980, when unions representing TAs were certified at nine Canadian universities (including UBC in 1980), the authors note that unionized campuses were more likely to be in urban and/or pro-unionization settings, to have larger graduate student populations and to face greater budgetary concerns.

Campuses on which unionization took place "may also have been more administratively decentralized," the authors say, and "The universities in which TAs initially unionized (Toronto and York) had lower graduate student income and a greater discrepancy between the incomes of humanities and social sciences students and those of others. These economic contributors to unionization did not characterize the universities in which TAs unionized later."

The authors conclude that probably the major factor in the emergence of TA bargaining is favorable Canadian labor legislation and its sympathetic interpretation by labor relations boards in Ontario, B.C. and Saskatchewan.

"This treatment has been more favorable, and more consistently favorable, to unionization than has U.S. treatment," the authors add.

Later in the paper, the authors say it is a matter of regret that a more searching analysis of the potential impact of TA unions on the university's teaching function did not precede the decision of labor boards to approve certification.

"The boards did not appear to believe that there was sufficient uniqueness associated with employee, employer, work performed, or non-work relationships to require such an analysis"...and "no university has yet argued in a concerted fashion that the graduate student/advisor relationship must take precedence over the employee/employer relationship or that the very purpose of a university is compromized when the contractual regulation of the graduate TA's secondary relationship with the university intrudes

upon the primary relationship."

A variety of circumstances and events, unique to each university, triggered TA unionization, the paper says. "...at Toronto the extraordinarily large number of combinations of TA duties and compensation appears to have been the salient factor.... At Regina the fortuitous presence of a small group of militant and capable leaders appears to have been crucial. At British Columbia the unusually affluent position of TAs in one science department appears to have been important. At Simon Fraser, the mix of fellowship and salary components in the total compensation was important."

In the pre-organizing period before unionization, the paper says, several universities made serious efforts to reform and regularize TA employment, using procedures involving consultation with graduate student representatives.

"These centralizing efforts appear to have foundered on the rock of departmental autonomy," the authors add, "with the main effect being to convince student leaders that consultative procedures would not solve TA's problems."

Unionized universities did not, on balance, "treat their TAs worse than did comparable non-unionized universities. Our study suggests that TA unionization was more a social-psychological phenomenon than an economic one, more an ideological demand for substantive equality than a pragmatic demand for as much money as the traffic would bear."

In summarizing, the authors say that such factors as the relative weakness of TA unionism, the difficult unionization campaigns, the narrow electoral victories, the evidence of large anti-bargaining groups among graduate students "suggest limited prospects for future unionization."

This would be reinforced "if university administrations were to do a more vigorous job...in communicating to graduate students and in providing them with trustable avenues for redress of grievances, and if anti-collective bargaining graduate students were to be less inept than they have been in mobilizing their supporters at the ballot box."

Offsetting these negative factors, however, "is the fact that TA bargaining is now an accepted institutional reality, with collective agreement achievements to point to, unions with dues income to support unionization drives, and the clear support of Canadian public policy."

In addition, future budgetary crises, reorientations of university programs and priorities, and other shocks to the university system will "periodically raise graduate student anxiety levels," with the result that "the probability of further unionization remains high."

Distance learning now can lead to BA degree

"I predict that in the very near future the Opening Learning Institute will have the largest number of registrations of any institution in British Columbia."

Pat McGeer, University, Science and Communications Minister, said this at a news conference on Sept. 7, when he announced details of the province's Open University Consortium, or Home Campus Program

He said that it is now possible "for all British Columbians to receive a bachelor's degree without ever setting foot on a university campus."

The new program has been made possible through the cooperation of the OLI, the Knowledge Network and the province's three universities.

More than 240 distance education courses have been prepared by the universities and the OLI, and many include supporting material broadcast by the Knowledge Network, which now reaches

almost 250 communities in the province.

These courses make a bachelor's degree a practical proposition for students anywhere in the province. The degree would be an OLI degree, which Dr. McGeer said would be equal to any university degree.

He said he expected an OLI degree to carry the same weight with the University of Toronto, the University of Alberta or with other schools as would a UBC, SFU or UVic degree. "There is no doubt in my mind that OLI graduates will receive equal consideration."

A calendar has been prepared by the Open University Consortium of B.C. giving course details, number of credits and course fees. Also shown is the school that prepared the course, and the corresponding course at that institution. Courses numbered in the 100s are first-year, 200s second year and 400s third and fourth year.

The Consortium course ENGL 410, The Structure of Modern English, for example,

is a UBC-prepared course and its equivalent at UBC is the 3-unit English 329. It carries six credits in the Consortium program offered by OLI. Course fee is \$264 for tuition and materials, excluding texts.

An OLI BA degree requires 120 credits (the equivalent of 20 3-unit courses at UBC) and may be taken in general studies or administrative studies. Up to 90 of the required 120 credits may be transferred from another institution.

Principal Ron Jeffels of OLI said the Open University Consortium meant that the pool of OLI courses "has exploded". He said only 50 could be offered by OLI without the help of the universities.

A Consortium Advisory Board of Directors is chaired by Andy Soles, acting deputy minister of universities, science and communications and is composed of two representatives from each of the five member institutions. UBC's members are Dr. Robert Smith, Vice-president Academic, and Dr. Don Russell, Associate VicePresident Academic

Despite Dr. McGeer's optimism, the Open Learning Institute has a long way to go before its registrations match those of any of the universities. Principal Jeffels said OLI now has 13,200 registrations, about half academic and half in career, vocational and technical programs, but expressed as 'full-time equivalents' the number is 1300. UBC this year has more than 20,000 full-time students, plus 6,000 part-time students.

The new Home Campus Program does not take the place of guided independent study, or correspondence, courses already offered by the universities. With the universities, however, some time on campus is mandatory. At UBC, this requirement varies from faculty to faculty, but in general a student is expected to spend two of the four years attending actual classes.

Federal task force report means more more

Universities play a central and strategic role in Canada's overall research effort, but there are crippling restraints on their ability to meet the industrial challenges increasingly being thrust upon them.

This is the view of a seven-person Task Force on Federal Policies and Programs for Technological Development, chaired by University of Waterloo president Douglas Wright.

The task force report, commissioned in November, 1983, was released late in July by Edward Lumley, then minister of state for science and technology. (The new minister for science and technology in the federal government is Dr. Tom Siddon, currently on leave from UBC's Department of Mechanical Engineering).

In general, the task force recommends that the federal government give a larger role to market forces and a smaller role to government in the promotion of Canadian industrial innovation.

In a section on "University-Industry Cooperation," the task force recommends that:

• Ottawa pay the "full" cost of university research that it funds through federal granting agencies such as the Natural

Sciences and Engineering Research Council (NSERC);

• A flat 25-per-cent bonus be paid to universities that participate in industrial research and development contracts;

• Dialogue between universities and industry would be dramatically stimulated if companies could earn a 50-per-cent tax credit for R&D that was performed on their behalf by universities; and

• NSERC's role should be to fund long-term research, build Canada's R&D capability, train scientific and engineering manpower and act as an overall coordinating agency for federally funded university R&D.

University research is doubly important, the task force report says, because it simultaneously produces not only ideas, but trained people. The task force strongly endorses "the knowledgeable, unbureaucratic methods by which NSERC funds university research, supports engineering, science and mathematics, funds strategic work in emerging technologies and works to promote greater industry participation in technology development."

The task force lists three "serious obstacles" to universities' ability to meet

industrial challenges. They are:

• Shrinking revenues "At a time when research demands are increasing, the number of operating dollars per student is decreasing in real terms. This correspondingly reduces the funds available for overhead support of sponsored research."

• "The open tional inflexibility of many university departments. It is often difficult for them to respond to new demands because of a plethora of other commitments — to undergraduates, to tenured staff, to existing research facilities and established areas of interest."

• The constraints of federal-provincial financing under Established Programs Financing (EPF) arrangements. Because the transferred funds "are not specifically earmarked for the universities, other provincial obligations often receive higher priority."

The report adds that "since the mid-1970s, university revenues per student have declined by about 30 per cent in real terms"

The task force says there is a "very real ceiling on the extent to which original funding under the present arrangements can produce additional research. The

ability of the universities to shoulder their portion of a growing research bill is strictly limited.

"As long as each outside dollar must be matched by another dollar from their own budgets, there are serious constraints on the universities' ability to play a fuller role

in technology development."

The task force lists three benefits that would result if Ottawa paid the full costs of university research. They are:

1. It wouldn't necessarily cost any more, because even though the total sum distributed would double, the increase could be accompanied by a reduction in the amounts payable under current transfer payments.

2. Universities would be relieved of the burden of finding research money of their own to match the amounts available from Ottawa. "Removal of this constraint would enable them to become more effective players in the process of technology development."

3. Ottawa would "get more bang for its research buck, because nearly every R&D dollar the universities received from Ottawa would be allocated according to rigorous

New UBC officer takes research story to

Jim Murray was on the phone when *UBC* Reports dropped in to his office in the Old Auditorium to ask how his job was going as UBC's first Industry Liaison Officer.

Dr. Murray, a geology professor who took on his new duties on June 1, spends a lot of his time on the telephone these days as he takes UBC's research story to industry and conveys industry's needs to the University.

The message from UBC, he says, has been extremely well received.

"I've talked to at least 20 major corporations in the country in the past two to three months. Their view is, 'Just tell us more. Please keep us informed.' They generally say, 'I think our president would be very interested to hear from UBC about developments like this."

Prof. Murray said that industry-University liaison is clearly a two-way street, with more and more approaches from industry coming every week and more and more faculty members calling him to talk about their research and to seek advice on possible industrial application.

"I find that every day I learn a lot more, but I view my job really as a way of helping to assist faculty with the possible commercialization of some of their work and to help get industrial participation in support of their research."

Dr. Murray said that during times of recession, it is probably wiser to go to an established firm with something invented on campus, rather than to start up a new venture.

"There's always lots of risk in new ventures and the failure rate is much higher than the success rate.

"What we strive for is to have a royalty agreement whereby we will get a certain percentage of the gross sales returned to the University. This could vary from a few percent up to 20 or 30 or 40 per cent, depending upon what the product is."

Asked if any such agreements had been signed recently, Dr. Murray said at least two were being worked upon actively.

"Hopefully, we'll be able to submit draft copies to the Board of Governors for preliminary approval within the next month or two."

He said he didn't think the University would like to make them public at this point, "and the University's partners would definitely be adamently opposed because the information would conceivably be quite useful to competitors."

Prof. Murray said the University could



Prof. Jim Murray

realistically look at having a number of millions dollars come in "if we can have more successful ventures such as the moli battery and others."

(The molybdenum battery, rechargeable and producing up to three times the energy of a standard battery of the same weight, was developed by a team of UBC scientists headed by Prof. Rudi Haering. A commercial production contract was negotiated earlier this year, and UBC will benefit financially.)

"I think the up side is very considerable," Dr. Murray said, "and yet over the whole University, we're probably only looking at a relatively small percentage of the total research that's being done. A few dozen projects in here can mean a great deal in terms of developing revenue and jobs and technology.

"What it takes, though, is lots of hard work, and I think what we have going for us at UBC is that there are good faculty. I find basically that faculty members are really quite enthusiastic and interested and really are anxious to see that some of their research gets put to use, and I think that's a really healthy sign."

Dr. Murray said he expected the

UBC researchers awarded record total of \$49.1 million

UBC researchers were awarded a record total of more than \$49.1 million in the 1983-84 fiscal year — a 4.93-per-cent increase over the previous year when awards totalled just over \$46.8 million.

In comparison with other Canadian universities, UBC now stands second in research funding for science, third in funding for medical research and fourth in funding for research in the humanities and social sciences. And in provincial terms, UBC attracts 79 per cent of the university research money that comes from outside agencies.

And increases in research funding to UBC over the past decade have been nothing short of phenomenal. Over a ten-year period, research funding has

increased more than 221 per cent from a 1973-74 total of \$15.2 million. And in the past five years, research funding is up from \$25.9 million, an 89.6 per cent increase in the period.

As in the past, more than half of the research funds reaching UBC in 1983-84 came from four federal granting agencies — the Canada Council, the Medical Research Council, the Natural Sciences and Engineering Research Council and the Social Sciences and Humanities Research Council. Funds from these sources — almost \$27 million — plus more than \$6.4 million from other federal government departments and agencies adds up to a federal contribution of nearly \$33.4 million for research.

Canadian health science foundations

and other non-profit agencies were the next largest contributors to UBC research with grants totalling just over \$6.4 million. Major contributors under this heading included the B.C. Health Care Research Foundation (\$2.7 million), the National Cancer Institute (\$1.7 million), the Heart Foundation (\$1.2 million) and the B.C. Science Council (\$1.1 million).

Other contributors to UBC research funding included non-medical foundations and non-profit organizations (\$1.2 million), Canadian companies (\$1.4 million) and non-Canadian sources (\$1.6 million).

Just over 1,000 researchers in the Faculties of Medicine and Science received more than \$31 million for research projects in the 1983-84 fiscal year. Medical researchers were awarded almost \$17

y for research at Canadian universities

criteria of quality, performance and relevance."

Referring to its recommendation that the federal government provide a flat 25 per cent bonus to universities which undertook contracts with industry, the task force says such a scheme would be "vastly cheaper for Ottawa to administer and much simpler for the intended recipients."

UBC Reports asked Prof. Peter Larkin, associate vice-president research and former dean of the Faculty of Graduate Studies, to comment on the recommendations in the task force report.

UBCR: Do you think the fact that there's been a change in government in Ottawa will affect the fate of the task force report?

PROF. LARKIN: I very much doubt it. You can't defy the law of gravity. The facts aren't going to change and the new Conservative government is just as interested as the Liberals or any other political party in ensuring that we keep up with the Joneses in the technological olympics. If we don't, we're dead.

dustry

Industrial Research Assistance Program (IRAP) of the National Research Council to be a big help. He said there were about a dozen IRAP officers in B.C. "out talking with at least two or three thousand companies a year."

He said they were feeding information back to him, "and this will feed back into the system. We just have to work together and cooperate."

Dr. Murray, whose time right now is spent 25 per cent in geology (his course shows a 50-per-cent increase in enrolment this year) and 75 per cent on industrial liaison, said he finds the liaison work interesting and challenging.

"I think the winds are blowing in the direction of having more technological transfer from the scientific sector and the universities into the industrial sector.

"There are just some tremendous examples in the world of how this system has worked successfully, and I supposed one of the best ones would be Silicon Valley and Stanford University.

"And let's face it, that was a technological transfer that changed the life of practically everyone in the world. Those kinds of ideas and dreams. . .some of them might be taking place here too."

million while members of departments in the Faculty of Science got over \$14.4 million.

The Department of Medicine in the UBC medical faculty was the leading campus department in terms of research grants — 147 awards were made for a grant total of just over \$4 million.

Departments which received in excess of \$2 million for research were Physics (\$2.9), Chemistry (\$2.6) and Pathology (\$2.7)

A total of 13 UBC departments, including Biochemistry, Botany, Geophysics and Astronomy, Medical Genetics, Psychiatry, Food Science, Civil Engineering and Metallurgy, each received research grants in excess of \$1 million.

UBCR: What's your general reaction to the report?

PROF. LARKIN: It's a good report. It has identified some of the problems we have in Canada. It seems clear there will be more money forthcoming from Ottawa for research and as long as there aren't too many strings attached to it, the universities will be happy.

UBCR: In general, where does Canada stand in terms of industrial research?

PROF. LARKIN: By comparison with other countries, we're falling behind. A disproportionately small percentage of research in Canada is done by industry—in the range of 25-30 per cent, and that's probably being generous—compared to 60-65 per cent in the U.S.

In Canada, we do a very large percentage of our research in government labs and in universities. The problem is how do you get government and university scientists interested in the kinds of research that are needed to support industry. The task force was set up to address that chronic problem.

UBCR: The task force says research in the U.S. is fostered through government tax breaks to industry. Is the Canadian situation different?

PROF. LARKIN: It was until recently. Last year it became possible to get scientific tax credits for doing work in R&D. In addition, programs such as the Industrial Research Assistance Program (IRAP), operated through the National Research Council have now been extended to universities. So industry is getting some encouragement to contract for research at universities.

Through the B.C. Science Council, UBC has obtained the services of an individual — and IRAP expert — who will be cooperating with our own Industry Liaison Officer, Prof. Jim Murray. The IRAP expert will bring industry customers to the university with their research problems. Jim Murray, at our end, knows what research people can carry out and what the University policies are on these matters.

So one member of this partnership is going to be pulling technology into the University, and the other is going to be doing the pushing.

UBCR: The task force recommends Ottawa pay the "full" cost of university research. What's the problem here?

PROF. LARKIN: That's a very interesting recommendation that has a good-news side and a bad-news side.

When the federal granting agencies give us research funds, they're really only paying the incremental cost of research. The University has to provide the building and services, look after administrative overhead and pay the professor's salary.

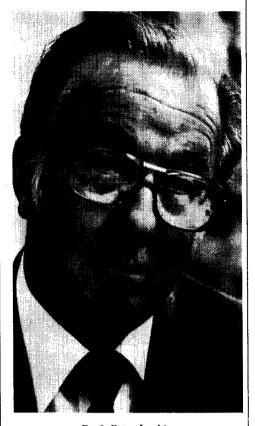
In effect, the granting councils are saying, "You've got a wonderful machine for doing research. Here's a bit of money to work on a specific project." Every time UBC receives a dollar of federal government research money, it costs the University 40 cents to pay the backup costs.

So the good news is that the task force has recommended that Ottawa pay the full costs of the university research it funds through its agencies.

The bad-news part of that recommendation is the task force's claim that Ottawa would get more bang for its research buck because R&D dollars would be allocated according to rigorous criteria of quality, performance and relevance.

That last word — relevance — is one that makes shivers go up and down the back of a university researcher if it means that someone in Ottawa is going to start dictating what research is undertaken.

In every country in which the government has had too heavy a hand in deciding on research priorities, the result has been a deterioration in the quality of the work. If you want something to happen



Prof. Peter Larkin

in terms of research, you're far better off to fertilize initiatives than to try to legislate people to do certain things.

Research is a creative enterprise. If you tell a painter what kind of pictures you want him to paint, you stifle his imagination. Exactly the same thing applies in research. If you support quality work, you get quality results . . . research that is new, different and exciting.

So if more government money implies more control over how it's used, alarm bells start going off in a lot of people's heads. There are more than a few people at UBC right now who will tell you that federal funding is distorting research priorities.

UBCR: The task force also recommends that universities get a flat 25-per-cent bonus from government when they undertake research contracts on behalf of industry. What is the rationale for that suggestion?

PROF. LARKIN: Well, as the report says, it's always tempting for government to create a plethora of programs aimed at encouraging industry-university cooperation. A 25-per-cent bonus paid to a university when it undertook such contracts would, as the report says, be cheaper for Ottawa to administer and simpler for the recipients.

That recommendation, plus the one that makes it possible for companies to get tax credits through investments in university research, would go a long way to foster university-industry cooperation.

Incidentally, there's nothing in the report that says the suggested 25-per-cent bonus would have to be used for a particular project. It could be used to initiate new work that wouldn't get done otherwise.

These recommendations, in a way, reflect Canada's current state of industrial evolution. This country doesn't have well-developed industry by comparison with the U.S., the U.K. and Japan and very little research has been done on the things that make up our industrial base. Until recently, for instance, all research in the field of pulp and paper was done in the east.

Now that's all about to change. The federal government is funding a staff research facility for the Pulp and Paper Research Institute of Canada (PAPRICAN) in UBC's Discovery Park and the Institute itself will contribute \$1 million a year toward the operation of a Pulp and Paper teaching centre we're building in the Applied Science complex.

Although it's not as highly developed as pulp and paper, we have a burgeoning

microelectronics industry in B.C. that is looking to the University for research support.

So, while we have no reason to be ashamed of our past track record, we're now asking industry to come to us, to think of us as a resource and to use us.

At the same time, we have to be careful not to overdo it. There are plenty of examples of universities in the U.S. which found themselves trapped as a result of locking themselves into arrangements with two or three companies. That can happen when you're growing quickly in terms of research expenditures.

I worry a little about that, because our own research expenditures have been growing enormously in recent years. If you're riding a horse that's going that fast, you have to be careful it doesn't get out of control.

Headache lab seeks patients

Researchers at UBC are looking for patients to take part in a study to treat one of the most common forms of headache, tension headaches.

The study is being carried out in UBC's psychology department and uses relaxation techniques, including relaxation environments such as the one the department has used to help people quit smoking and to treat patients with essential hypertension or blood pressure.

Dr. Peter Suedfeld, dean of UBC's Faculty of Graduate Studies and former head of the psychology department, said the REST research laboratory is now turning its attention to the treatment of tension headaches. Headaches are one of the most common medical complaints. Tension and migraine headaches account for 80 per cent of all headaches reported, he said. "We believe that tension headaches are caused by excessive contraction of the muscles in the neck and scalp. We hope that teaching patients to relax will reduce the 'work' that the muscles are doing and will therefore result in fewer headaches," Dr. Suedfeld said.

The purpose of the research project is to develop an effective non-drug therapy for headache sufferers. The study will compare a number of different relaxation treatments, including combining progressive muscle relaxation with relaxation environments.

The treatments being used are not experimental. What is new is the combinations of treatments that are being studied.

To volunteer for the Relaxation Program, or to get more information, please call 228-6666.

Women wanted for fitness research

A researcher in UBC's School of Physical Education and Recreation is looking for volunteers for a project on factors which influence women to change their fitness patterns.

Dr. Bonnie Long requires women who have been relatively inactive (exercising less than twice a week) and who now wish to increase their activity level. Volunteers will be asked to fill in some questionnaires. In return, an hour of free fitness consultation is offered to help women explore their needs, problems and set realistic goals for a physically active lifestyle.

The project is being funded by Fitness Canada and is part of the Lifestyle Referral Project, a computer-assisted referral service operating out of the physical education and recreation school which provides information on lifestyle change programs in the Greater Vancouver area.

For details on either project, call

228-3902.



Walter Hardy

Jacob Biely prize to physicist

Prof. Walter Hardy of UBC's physics department has been named the winner of the 1984 Prof. Jacob Biely Faculty Research Prize.

The award, which carries with it a cash prize of \$1,000, has been given to Prof. Hardy for "an outstanding record of achievement in research that ranges from molecular and solid state physics through applied physics and engineering.

The Biely Prize is one of several awards that Prof. Hardy has received for his research since he joined the UBC faculty in 1971. He was awarded a prestigious Sloan Fellowship in 1972, the Herzberg Medal of the Canadian Association of Physicists and the Steacie Prize of the Natural Sciences and Engineering Research Council in 1978 and a Canada Council Senior Killam Fellowship for the period 1984-86.

Dr. Hardy first gained notoriety in the early 1970s as the result of a series of pure-science experiments using novel microwave techniques which resulted in a substantial improvement in the understanding of solid molecular hydrogen.

The accuracy to which low-lying energy levels of the solid could be determined was increased by about a factor of 1,000 and this allowed the study of many effects never before observed.

In 1979, a method of producing and confining atomic hydrogen at low temperatures with liquid helium-coated walls was developed by a research group headed by Dr. Hardy. This technique, combined with magnetic resonance detection of hydrogen atoms, has played a key role in the development of a new field of lowtemperature physics work.

This work has proved to have many practical consequences, including a way to increase by a thousandfold the accuracy of existing atomic clocks. It is also relevant to the production of deuterium and tritium, the favored fuels of fusion, the energy source of the future.

Prof. Hardy, who has carried out much of his work in the physics department in association with Dr. John Berlinsky, is a native of Vancouver and a graduate of UBC, where he was awarded the degrees of Bachelor of Science and Doctor of Philosophy. He was elected a fellow of the Royal Society of Canada, this country's leading academic organization, in 1980.

Prof. Hardy is the 15th winner of the Biely Prize established by George Biely, a well-known figure in the B.C. construction industry, in honor of his brother, Prof. Jacob Biely, an internationally known poultry scientist who died in 1981. Jacob Biely's association with UBC as a student, teacher, researcher and administrator spanned half a century.

Day of Concern draws big crowd; 'Contributed to public awareness'

objective, organizer Jake Zilber said.

Mr. Zilber, a professor of creative writing at UBC and chairman of the Day of Concern Committee, said the turnout of more than 750 for the Sept. 8 program at Robson Square was extremely good.

"We were trying to get the public to understand that when the universities are damaged, the public is damaged," Prof. Zilber said, "and I think this was well communicated by our speakers."

He said attendance at the Day of Concern, which was sponsored by the faculty associations of the province's three universities, showed clearly that the concern is shared at every level of the university community."

Prof. Zilber said that although media coverage of the event was not overwhelming, the message was getting out to the community at large. And the CBC's television reporting of the event, he said, was excellent. Prof. Zilber said he had been interviewed himself by radio stations in New Westminster, Kamloops, Abbotsford, Kelowna and Vancouver.

"I think the Day of Concern contributed to public awareness," he said. "There are serious problems at our universities, and more and more people are becoming concerned."

Master of Ceremonies for the Day of Concern program was Dr. Scott Wallace, former leader of the provincial Progressive Conservative Party and a former member of the legislative assembly.

Speakers, in order, were:

Earle Birney, one of Canada's foremost writers, a former student and professor at UBC, who spoke on Why I'm Glad I Went

Robert F. Alexander, president and chief executive officer of Microtel Ltd., on Why High Tech Industries Need Universities:

Marguerite Ford, Vancouver alderman, on Why Society Deserves to Have Academic Freedom and University Autonomy

William Saywell, president of SFU, on The Universities Are the Solution, Not the

George Pedersen, president of UBC, on How the Universities Will Affect the

Howard Petch, president of UVic, on Post-Secondary Enrolment and Degree Performance: How British Columbia Ranks Nationally;

Margaret Copping, president of the UBC Alma Mater Society, on Restraint: The

UBC Reports does not have the space to reprint all of the speeches, but here are

EARLE BIRNEY (who started at UBC in 1922): I didn't, of course, have to go to a university at all. If I hadn't, I might have ended in an asylum or a penitentiary.

The politicians who run cities and provinces sometimes forget how interdependent university folk and urban

would be a cultural cripple, and UBC will always need to have Vancouver's urbanity

I think that every week brought me new duties, challenges, setbacks, ordeals, allurements, and pleasures. I suspect that many of today's UBC students are having similar experiences right now. I hope so. I hope they are being stirred to enjoy as well as to achieve, and also, if now there is need again, to organize and struggle alongside their faculty, for the maintenance of UBC's prestige.

Who knows...The Day of Concern may be followed in Victoria by a Day of Atonement.

ROBERT ALEXANDER: I personally contend that a tight coupling must exist, not only between some general community of higher educational institutes and the 'Royal we' of high-tech industries, but between individual faculties and specific companies. I need a flow of post-grad minds preconditioned to Microtel's new product strategies...

Industry can, does and (in Microtel's case) is more than willing to complement the universities with guest or part-time instructors, exchange researchers, equipment use and even provide reasonable access to Microtel's facilities.

MARGUERITE FORD: Academic freedom is important to all of society because universities are the only institutions that can expand the horizons of human knowledge and preserve what society has already learned so that the work of our best minds is available for the benefit of all.

Restraint must not fall disproportionately on the intellectual community as a whole, compared to other groups, and decisions on restraint should be made by the academics themselves. I am not qualified to judge where reductions can be made and neither is any other politician. Restraint as an end in itself is not justifiable in an academic setting.

WILLIAM SAYWELL: It is obvious that precise data on the economic value of increased intellectual competence is virtually impossible to provide. Nevertheless, the contribution made by higher education to economic development and technological advance is beyond question.

To support the government's vision of recovery, there is an urgent need for specialists who can combine technical competence with resourcefulness and a wide range of knowledge. Simply stated, now is the time when the problem-solving abilities of the natural sciences, the critical judgement and cross-cultural insight of the humanities, and the drive to fathom the human condition found throughout the social sciences, can be utilized to their full authority. Now is the time when specialized instruction, within the greater context of a liberal education, should come to the forefront of public policy.

We must, in this province, and in this country, see our universities, not as part of the economic problems we have, but as a

Support for our universities is vital if we wish to enjoy a healthy and productive economy, if we wish to keep pace with our

in supporting higher learning.

searching for solutions.

those problems.

GEORGE PEDERSEN: At a time such as

this, our universities must play an extremely

distressing to consider that support for our

important role in helping society, ourselves included, address many difficult

problems and issues. It is therefore

are becoming impaired.

provincial well-being.

institutions of higher learning is being

eroded to a point where our educational

I, for one, believe that reducing our

commitment to education is, in the long

In my view Canadian universities have

become too dependent upon government

encourage the private sector, the public,

I would like to invite the provincial

partnership with us that will be marked not

government to enter into a renewed

by confrontation but by cooperative

and our alumni to become more involved

for operating revenues and must, therefore.

run, a false economy and one that

ultimately threatens our national and

effectiveness and our programs of research

neighbors around the world, and if we wish to generate the ideas necessary to address many of the social and economic difficulties that trouble us today.

HOWARD PETCH: In the early 1960s, the participation of the youth of B.C. in university education compared favorably with that in other Canadian provinces and the number of university degrees awarded annually in B.C. universities was in good balance with B.C.'s share of Canada's youth population. This situation has changed dramatically so that the B.C. participation rate now is only about three-quarters that of the Canadian average and B.C. produces only about two-thirds of the number of university graduates that one would expect

for its population of young people. This is likely to result in lower participation in the labor force, higher unemployment and reduced access to better-paying, more fulfilling jobs. This is especially true for the approximately one half of B.C.'s young people who are growing up in the non-metropolitan areas and find university much less accessible than young people whose families happen to reside in the Vancouver or Victoria areas. A young person graduating from high school outside Greater Vancouver or Greater Victoria has less than half the chance (40 per cent) of attending university as his or her counterpart in one of the metropolitan areas.

MARGARET COPPING: A student entering a five-year program this week, dependent on financial aid, will graduate with a debt of 20- to 25-thousand dollars. This isn't a diatribe against the student aid program, though it may seem so. Thousands of students would not be attending university without such a program, and mortgaging one's future is still preferable for many students -including myself-to having no future at all.

Of course, there are those who say, 'Well, of course the affluent can afford things the less affluent can't; what did you ct? But to subscribe to that poin view-for society to subscribe to that point of view-is to reduce education to the status of just another consumer good. And education is more than that.

Education is, and should be, a chance for the gifted, the dedicated, and the hardworking members of any economic or cultural background, and any region, a chance to make their own way, a chance to cultivate their skills, to become more fully active, more valuable members of society. To reduce education to a consumer good is to waste the greatest economic, cultural and scientific resources that we have-the hearts and minds of motivated people.

Special Ed launches \$500,000 drive

A fund-raising committee is out to collect \$500,000 to ensure continuation of the Bachelor of Education in Special Education degree program by funding a chair in the Faculty of Education.

The special education program, which trains teachers to deal with students with mild learning problems, was a victim of retrenchment and financial cutbacks in the last fiscal year. Students enrolled in the degree program will be allowed to complete it, but no new students were admitted this year.

The fund-raising committee, under the patronage of former UBC Chancellor J.V. Clyne, has been organized by the parents of students in the special education

The committee's activities begin Monday (Sept. 24) when Vancouver Mayor Mike

Harcourt will proclaim Special Education Week at a picnic and entertainment event from 12 noon to 2 p.m. on McInnes Field north of the War Memorial Gym. The Lions' Club will donate food and drink for the occasion and Shriners bands and clowns will provide entertainment.

On Sept. 30, the committee is planning a celebrity car rally that begins and ends at UBC, between 9 a.m. and 3 p.m. The rally is being led by UBC's present chancellor, Robert Wyman. The Vancouver firm of Rent-a-Wreck is donating 30 cars for this

Members of the University who would like to make a donation to the Special Education Endowment Fund should send cheques made payable to the fund to Dean Daniel Birch, Faculty of Education, Scarfe Building, Campus.

CAMPUS

Quick action by Lorne Lamont, an employee of UBC's Oyster River Research Farm near Campbell River on Vancouver Island, has been credited with saving the life of fellow farm employee Percy Mikkelsen.

Lamont, an assistant herdsman on the farm, used resuscitation techniques learned as an Oyster River volunteer fireman to revive Mikkelsen, who was found lying unconscious beside the tractor he had been operating on the farm.

When found by Lamont, Mikkelsen had stopped breathing, had no pulse and was turning blue from lack of oxygen. Lamont used the resuscitation method known as CPR to revive Mikkelsen, who was hospitalized for two days. He has now returned to work on the farm but has no recollection of what caused him to faint and topple from the tractor.

The completion of an 18-year research project, much of it carried out at UBC, was marked at the Bavarian Academy of Fine Arts in Munich, West Germany, yesterday

One of the central figures at the event was Margit McCorkle, a research associate in UBC's Department of Music, who completed the editing of the first thematic catalogue of the entire works of the 19th-century German composer Johannes Brahms following the death in 1978 of her husband, the late Prof. Donald McCorkle.

Mrs. McCorkle was one of four speakers at the ceremony organized by the publisher of the catalogue, G. Henle Verlag of Munich. Other speakers included the president of the Bavarian fine arts academy and the director of the music collection at the Berlin state library.

Two presentation copies of the catalogue were be given at the ceremony - the first to Canada's ambassador to Bonn, Donald McPhail, and the other to West Germany's minister of culture.

The Brahms thematic catalogue is basically a listing of everything the composer wrote. In addition to reproducing the first few bars of each composition, the

catalogue provides details on the creation of each work, information on the work's first performances and the circumstances of its publication.

At the time of his death in 1978, six years after joining the UBC faculty, Prof. McCorkle and his wife had located three-quarters of Brahms manuscripts in North American and European archives.

After 1978, Mrs. McCorkle searched out the balance of the manuscripts, collected bibliographic information and wrote the individual entries for the catalogue with the help of research assistants Wiltrud Martin and Thomas Quigley.

Funds to support the project came from the Canada Council and the Social Sciences and Humanities Research Council.

Prof. Michael Goldberg of the Faculty of Commerce and Business Administration will take part in the 1984-85 seminar series of the University Consortium for Research on North America at Harvard University.

Prof. Goldberg, who is Herbert R. Fullerton Professor of Urban Land Policy at UBC, speaks Oct. 10 on The Impact of Institutions Affecting Land Use in Canada and the United States - Similarities and Differences Between the Two Countries.

The seminar series deals with the central theme of the consortium's Land-Use Project, which compares public and private performance in Canada and the U.S. in the acquisition, management or regulation and disposal of land.

Prof. V.J. Modi of the Department of Mechanical Engineering is the first Canadian to be named a corresponding member of the International Academy of Astronautics, which has its headquarters in Paris, France.

The academy, the most prestigious organization of its kind in the world, numbers among its members individuals such as Neil Armstrong, the first man to set foot on the moon; British astronomer Sir Bernard Lovell; Dr. James A. Van Allen, discoverer of the Van Allen radiation belt; and Prof. L. Sedov, president of the USSR Academy of Scientists.

Barry Foord, an administrator for 17 years at the University of Waterloo, has been appointed Director of Administrative Services at UBC, effective Oct. 15.

The appointment was announced in August by Bruce Gellatly, UBC's Vice-President, Administration and Finance.

Mr. Foord's duties will include supervision of the Purchasing Department (including Copy and Duplicating and Mail Services), the Bookstore, Food Services, and Traffic and Security.

Mr. Foord, a chartered accountant with experience in public accounting practice and industry as well as university, has been Director of Operations Analysis at Waterloo since 1971.

He has the knowledge and experience needed to analyse, cost justify, recommend, and implement changes in administrative services of UBC, Vice-President Gellatly said. "I welcome Foord to UBC. I know he will make a significant contribution to the quality and cost effectiveness in the delivery of administrative services."

Dr. Peter Larkin has been appointed to the Board of Governors of the International Development Research Centre for a period of four years.

The centre was formed by the federal government in 1970 to undertake research in applying science and technology to developing countries.

Audiology fund target \$1 million

UBC's School of Audiology and Speech Sciences has launched an endowment fund appeal.

The fund will cover the cost of a position in the school - the first chair of audiology and speech sciences in Canada – and will provide funds for graduate students' scholarships.

The target for the appeal is \$1 million, said school director Dr. John H.V. Gilbert. The interest on about \$700,000 will go towards funding the chair, and interest on approximately \$300,000 will provide the scholarships.

So far, more than \$300,000 has been raised from the Workers Compensation Board of B.C., Vancouver Foundation, W.J. VanDusen Foundation, McMillan Family Fund, Unitron Industries and private donors.

Dr. John E. Butterworth, a member of UBC's Faculty of Commerce and Business Administration for the past 15 years, died Aug. 3. He was 58.

Dr. Butterworth was regarded as among the top five authorities on accounting in Canada, was on the editorial board of a number of major accounting journals and made significant contributions to accounting theory.

He was director of graduate studies and chairman of the division of accounting and management information systems in the faculty from 1971 to 1973. He became director of the faculty's doctoral program in

His most recent work involved management accounting and information economics - the study of costs and benefits and the design of information systems used in a variety of organizations.

He and faculty colleague Dr. Amin Amershi recently received a \$27,000 grant from the Social Sciences and Humanities Research Council of Canada to carry out research on internal control systems used in large corporations or public institutions.

Dr. Thomas Howitz, an associate professor of mathematics education at UBC, died of cancer on Aug. 8 at the age of

Dr. Howitz joined the Faculty of Education in 1964 after teaching at the secondary school level in North Dakota and at Hamline University in St. Paul, Minnesota.

At UBC, Dr. Howitz devoted a great deal of his time to the improvement of the mathematics section of the Education curriculum laboratory. He was also involved in the area of microcomputers and their use in the school system.

Dr. Howitz was active in the B.C. Association of Mathematics Teachers and served as a representative to the National Council of Mathematics Teachers.

He is survived by his wife, Carol, daughter Joanne, his parents and two

In memory of Dr. Howitz, members of the Faculty of Education have established the Thomas A. Howitz Memorial Library Fund for the acquisition of publications for the curriculum laboratory. Those wishing to make a contribution should contact Prof. Jim Sherrill, Faculty of Education.

CALENDAR DEADLINES

For events in the weeks of Oct. 7 and 14, material must be submitted not later than 4 p.m., on Thursday, Sept. 27. Send notices to Information Services, 6328 Memorial Road (Old Administration Building). For further information, call, 228-3131.

The Vancouver Institute



Saturday, Sept.

Children: The Casualties of a Failed Marriage. The Honorable Madame Justice Bertha Wilson. Supreme Court of Canada.

Saturday, Sept.

Byzantine Culture. Prof. Alexander Kazhdan. **Dumbarton Oaks Centre** for Byzantine Research. Harvard University.

Both lectures take place in Lecture Hall 2 of the Woodward Instructional Resources Centre at 8:15 p.m. and are free of charge.

SUNDAY, SEPT. 23

Museum Performance.

Evelyn Roth presents Meeting Place, a living fusion of dance, music, theatre and ritual at the Museum of Anthropology. Rain or shine. Free admission. 2 p.m.

SUB Films.

Splash. Shows at 7 and 9:30 p.m. Admission is \$1.50. Auditorium, Student Union Building. 7 p.m.

MONDAY, SEPT. 24

History of Medicine Lecture.

Recent Developments in Physiology. Dr. J.R. Ledsome. Room 80B, Woodward Instructional Resources Centre. 8:30 a.m.

Human Settlements Lecture.

Urban Project Renewal: Evaluation Methods and Community Participation. Prof. Morris Hill, Technion-Israel Institute of Technology. Room 205, Lasserre Building. 12:30 p.m.

Slavonic Studies Lecture.

Humor in Old Russian Literature. Prof. Ewa M. Thompson, German and Russian Studies, Rice University, Texas. Penthouse, Buchanan Building.

Plant Science Seminar.

Data Analysis on a Microcomputer. Dr. G.W. Eaton, Plant Science, UBC. Room 342, MacMillan Building. 12:30 p.m.

The Pedersen Exchange.

An opportunity for members of the University community to meet with President George Pedersen to discuss matters of concern. Persons wishing to meet with the president should identify themselves to the receptionist in the Librarian's office, immediately to the left of the main entrance to the Main Library. 3:30 to 5 p.m.

Applied Mathematics/Mathematics Seminar.

Post-Condensation for a Reaction-Diffusion System. Prof. Isumi Takagi, Mathematical Institute, Tohoku University, Japan. Room 229, Mathematics Building. 3:45 p.m.

Health Promotion Exchange.

Do Smokers Pay Their Way? Roberta Labelle, Clinical Epidemiology, McMaster University, Hamilton. Room 253, Mather Building. 4 p.m.

TUESDAY, SEPT. 25

Botany Seminar. Evolution and Function of Bioactive Phytochemicals from Desert Dominants of Baja California and Chihuahua. E. Rodriguez, Botany, UBC. Room 3219, Biological Sciences Building. 12:30 p.m.

Film/Discussion.

This Film is About Rape. Free admission. For details, call 228-2415. Rooms 106, A, B and C. Brock Hall. 12:30 p.m.

Stress Drop-In.

Practice a variety of stress management skills and find what works best for you. For details, call the Women Students' office at 228-2415. Penthouse, Buchanan Building. 12:30 p.m.

Chemistry Lecture.

High Energy Halogen Oxidizers. Dr. Karl O. Christie, Rocketdyne Division, Rockwell International. Room 250, Chemistry Building.

Electrical Engineering Seminar.

Travelling-Wave Relay Featuring Fault Classification and Phase Selection. M.M. Mansour, post-doctoral fellow, Electrical Engineering, UBC. Room 402, Electrical Engineering Building. 1:30 p.m.

Oceanography Seminar.

How the New Zealand Rowers Can Beat the Canadians in the 1988 Olympics. Dr. Brian Sanderson, Oceanography, UBC. Room 1465, Biological Sciences Building. 3:30 p.m.

Cancer Research Seminar.

Cytoskeleton and Nuclear Matrix: Embeddment-Free Visualization and Biochemical Characterization, Dr. Sheldon Penman, Biology, MIT. Lecture Hall 3, Woodward Instructional Resources Centre. 4 p.m.

WEDNESDAY, SEPT. 26

Noon-Hour Concert. The Guitar in Vienna, 1800-1840: Music of Matiegka, Giuliana and Mertz. Alan Rinehart, guitar. Recital Hall, Music Building. 12:30 p.m.

Forestry Seminar.

The State of Provincial Forestry in B.C. Charlie Johnson, Silviculture Branch, Ministry of Forests, B.C. Room 166, MacMillan Building. 12:30 p.m.

Assertiveness for Women (Basic).

The Office for Women Students will lead an Assertive Training Group for women students. The workshop will teach women to express themselves directly and overcome obstacles to assertive behavior. Pre-registraion required in Brock 203. Room 106C, Brock Hall. 12:30 p.m.

Geography Colloquium.

The Politics of Suburban Landscapes: A Structuration Perspective. Nancy Duncan, Geography, Syracuse University. Room 201, Geography Building. 3:30 p.m.

Animal Resource Ecology Seminar.

The Ecological and Evolutionary Significance of Protein Heterozygosity. Dr. Jeffry Mitton, Biology, University of Colorado. Room 2449, Biological Sciences Building. 4:30 p.m.

THURSDAY, SEPT. 27

Academic Women's Association.

The Report on Academic Women at UBC. Dr. M. Murphy. Penthouse, Buchanan Building.

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Thursday, Sept. 27 (con't)

Leon and Thea Koerner Lecture.

Computer Simulation of Scientific Discovery. Prof. Herbert Simon, Computer Science and Psychology, Carnegie Mellon University. Room 201, Computer Science Building. 12:30 p.m.

China Seminar.

The Production Responsibility System in Chinese Agriculture: More Evidence from Kwangtung (Guangdong). Prof. Graham Johnson, Anthropology and Sociology, UBC. Room 604, Asian Centre. 3:30 p.m.

Computer Science Seminar.

Uses of Logic in Artificial Intelligence Programming. Prof. Herbert Simon, Computer Science and Psychology, Carnegie Mellon University. Room 301, Computer Science Building. 3:30 p.m.

Mathematics Colloquium.

Some Operators of Trace Class. Prof. Robert Langlands, Institute for Advanced Study, Princeton. Room 1100, Mathematics Building Annex. 3:45 p.m.

Psychology Seminar.

Social Psychology in the U.S.S.R.: The Design of Discipline. Dr. Lloyd Strickland, Psychology, Carleton University. Room 2512, Kenny (Psychology) Building. 3:45 p.m.

Physics Colloquium.

A Chemist's View of NMR Imaging, Laurence Hall, Chemistry, UBC. Room 201, Hennings Building. 4 p.m.

FRIDAY, SEPT. 28

Men's Volleyball.

High School Boys Invitational. Continues on Saturday, Sept. 28. War Memorial Gym. All day both days.

Women's Fieldhockey.

Early Bird Tourney. Begins on Friday at 1 p.m. and continues all day Satuday and Sunday on the playing fields behind the Robert Osborne Centre.

Medical Genetics Seminar.

Hypophosphatasia—Biochemical and Clinical Correlations. Drs. L. Kirby, M. Hayden and S.L Yong. Parentcraft Room, Grace Hospital. 1 p.m.

Hockey.

Tenth annual Alumni-Varsity Game. Arena, Thunderbird Winter Sports Centre. 2 p.m.

Astronomy Seminar.

Liquid Mirror Telescopes. Dr. Ermanno F. Borra, Observatoire du Mont Megantic, Université Laval. Room 260, Geophysics and Astronomy Building. 3 p.m.

Faculty Club.

Special 25th anniversary dinner and floor show. For details, call 228-2708. Faculty Club. 7 p.m.

SUNDAY, SEPT. 30

Japan Day.

Japan Day. A wide range of traditional and contemporary Japanese art, cultural performances, demonstrations and exhibits will take place in the Asian Centre, Nitobe Garden and International House. Admission is \$2 regular, \$1 for students and seniors. For more information, call 874-2411. 11 a.m. to 6 p.m.

MONDAY, OCT. 1

Flow Cytometry Conference.

A day-long workshop/conference organized by the Fluorescent Activated Cell Sorting (FACS) User's Committee. Open to anyone interested in flow cytometry. Salons A and B, Faculty Club. 8:30 a.m. to 5 p.m.

Xerox Lectureship in Chemistry.

Multicomponent Gas Absorption and Transport in Glassy Polymer Membranes. Harold B. Hopfenberg, Chemical Engineering, North Carolina State University. Room 225, Chemistry Building. 11:30 a.m.

Plant Science Seminar.

The Role of Soil Microflora in the Herbicidal Action on Glyphosate. Dr. J.E. Rahe, Biological Sciences, SFU. Room 342, MacMillan Building. 19:30 p.m.

The Pedersen Exchange.

The Pedersen Exchange is cancelled today because the president is away. The president meets every Monday he is on campus with members of the University community to discuss matters of concern. The Pedersen Exchange normally takes place in the Main Library, 3:30 to 5 p.m.

Medicine Lecture.

Organization of Nephron Function. Dr. Maurice Burg, director, Laboratory of Kidney and Electrolyte Metabolism, National Institute of Health, Bethesda, Md. Room S-168, Acute Care Unit, Health Sciences Centre Hospital. 3:30 p.m.

Applied Mathematics Seminar.

Half Plane Diffraction in a Gyrotropic Media. Dr. Stanislaus Przezdziecki, Electrical Engineering, NRC, Ottawa. Room 229, Mathematics Building. 3:45 p.m.

Zoology Physiology Group Seminar.

Lactate Turnover during Exercise. Dr. G.A. Brooks, Exercise Physiology Laboratory, University of California at Berkeley. Room 2449, Biological Sciences Building. 4:30 p.m.

TUESDAY, OCT. 2

Faculty Women's Club.

Annual general meeting and registration for interest groups. Cecil Green Park. 10 a.m.

Botany Seminar.

Change on the Morphology of the Cell Coat of *Dunaliella tertiolecta* during Aging. L. Oliveira, Botany, UBC. Room 3219, Biological Sciences Building. 12:30 p.m.

Xerox Lectureship in Chemistry.

Measurement and Retardation of Consolidative Relaxation of Dilated Polymeric Glasses by Sorbed Vapors. Prof. Harold B. Hopfenberg, Chemical Engineering, North Carolina State University. Room 250, Chemistry Building. 1 p.m.

Oceanography Seminar.

Dinoflagellates in Plankton Food Webs. Dr. Gregory Gaines, Oceanography, UBC. Room 1465, Biological Sciences Building. 3:30 p.m.

Special Medicine Seminar.

Tissue Culture Models of Renal Epithelial
Transport. Dr. Maurice Burg, director,
Laboratory of Kidney and Electrolyte Metabolism,
National Institute of Health, Bethesda, Md.
Lecture Hall 5, Woodward Instructional
Resources Centre. 4:30 p.m.

WEDNESDAY, OCT. 3

Noon-Hour Recital.

Music of Arne, Bach, Debussy and Poulenc. Paul Douglas, flute; Valerie Galvin, soprano; and Robert Rogers, piano. Recital Hall, Music Building. 12:30 p.m.

Forestry Seminar.

The State of Industrial Forestry in B.C. Bruce Devitt, chief forester, Pacific Forest Products. Room 166, MacMillan Building. 12:30 p.m.

Geography Colloquium.

The City as Text: Reading the Landscape of 18th Century Kandy. James Duncan, Geography, UBC. Room 201, Geography Building. 3:30 p.m.

Animal Resource Ecology Seminar.

Diet Selection in Arctic Lemmings. Dr. Art Rogers, Animal Resource Ecology, UBC. Room 2449, Biological Sciences Building. 4:30 p.m.

THURSDAY, OCT. 4 Career Planning Series.

A Practical Exploration of Career Options using Decision-Making, Research and Discussion Methods. Homework required. Penthouse, Buchanan Building. 12:30 p.m.

Mathematics Colloquium.

Nilpotent Conjugacy Classes, Symmetric Functions and Regular Orbits of the Weyl Group. Prof. James Carrell, UBC. Room 1100, Mathematics Building Annex. 3:45 p.m.

Physics Colloquium.

Vibrational Excitation Spectra of Fractals. Raymond Orbach, Physics, University of California, Los Angeles. Room 201, Hennings Building. 4 p.m.

SUB Films.

Tender Mercies. Continues until Sunday, Oct. 7, with shows at 7 and 9:30 p.m. on Friday and Saturday and one 7 p.m. show on Thursday and Sunday. Admission is \$1.50. Auditorium, Student Union Building. 7 p.m.

FRIDAY, OCT. 5

Leon and Thea Koerner Lecture.

Music in Caravággio and Some of his Followers. Prof. Colin Slim, University of California, Irvine. Room 113, Music Building. 3:30 p.m.

Hockey.

Empress Cup Tourney. Takes place on Friday at 6 and 8 p.m., Saturday and Sunday at 12 and 3 p.m. Arena, Thunderbird Winter Sports Centre. 6 n.m.

SATURDAY, OCT. 6

Women's Fieldhockey.

CWUAA Tourney. Continues on Sunday, Oct. 7. Playing fields behind the Robert Osborne Centre. All day both days.

Football.

UBC vs. the University of Saskatchewan. Thunderbird Stadium. 7:30 p.m.

Notices . . .

Faculty and staff badminton

Club meets in Osborne Centre, Gym B, Tuesdays from 8:30 to 11 p.m. and Fridays from 7:30 to 10:30 p.m. Guests and new members are welcome.

Pipes and drums

Pipers and drummers among faculty, students and staff interested in playing on campus are asked to contact Dr. Edward Mornin, Germanic Studies at 228-5140.

Internship program

Information interviews for internships in social planning, public health, writing, television, museum work, etc. 8:30 a.m. - 4:30 p.m. daily. Room 213, Brock Hall.

First aid courses

St. John Ambulance is offering their Safety Oriented First Aid Course (SOFA) and Cardiopulmonary Resuscitation Course (CPR) to UBC students. The SOFA course requires eight hours to complete and will be offered on Saturdays; upon completion of the program, an Emergency First Aid Certificate will be issued, which is valid for three years. The CPR course requires four-and-a-half hours to complete and will be offered on Saturdays. Each course costs \$20. Registration is Tuesday, Sept. 25 and Thursday, Sept. 27, from 10 a.m. to 2 p.m. in the Woodward Instructional Resources Centre Mall. Course fees are payable at that time.

English as a second language

Starting Oct. 1, the UBC English Language Institute is introducing a campus evening program and an off-campus morning program for non-native speakers. Study is available for English language learners at all levels. For more information, please call 222-5285.

Stress study

Dr. B. Long of UBC's recreation and leisure studies department is looking for female volunteers to participate in a laboratory study on coping with stress. A free stress and coping workshop will be offered for participants. The study involves two one-and-a-half-hour sessions in the Buchanan Fitness Laboratory. For details, call Dr. Long at 228-5884.

Asian exhibit

Sept. 23 to 29: A photography exhibit by Wong Ying Wah on display in the auditorium of the Asian Centre, daily, from 11 a.m. to 6 p.m.

Museum of Anthropology

Exhibits: Hidden Dimensions: Face Masking in East Asia; Cedar! An introduction to its traditional uses by Northwest Coast Indians; Buried History of London; Four Seasons: Seasonal Activities of Prehistoric Indian Peoples in B.C.; O Canada; Show and Tell: The Story of a Big Mac Box.

Behind-the-Scenes Tours: Museum conservator Miriam Clavir conducts tours of the new conservation laboratory. Group size limited to 12 people, children under 10 must be accompanied by an adult. Free with museum admission. Oct. 26, Nov. 17 and Dec. 7 at 2:30 and 3:30 p.m.

Guided Gallery Walks: Begin early in October. Call 228-5087 for more details.

Free Identification Clinics: Bring your collectibles to the museum for assistance with identification and conservation. Sept. 25, Oct. 30 and Nov. 27, 7 p.m.

Tuesday Programs: Poetry reading by students in the creative writing department, Nov. 13, 7 p.m.; Snake in the Grass Moving Theatre, Nov. 20, 27 and Dec. 4, 11, at 7:30 p.m.

The museum also features a wide range of workshops and special programs. For details on museum activities, call 228-5087. The museum is open noon to 9 p.m. on Tuesdays, noon to 5 p.m. Wednesday through Sunday and is closed on Mondays.

Agricur

Experienced and new curlers are invited to Agricurl on Tuesdays at the Thunderbird Winter Sports Centre. Begins Tuesday, Oct. 9 at 5 p.m. For details, call A. Finlayson at 228-3480, P. Willing at 228-3280 or J. Shelford at 228-6578.

VOLUNTARY EARLY TERMINATION OF APPOINTMENT

(MEMBERS OF THE FACULTY ASSOCIATION BARGAINING UNIT)

The University is willing to discuss this matter with any faculty member, professional librarian, or program director. The compensation arrangements are based upon consideration of past service and years remaining until normal retirement date. The maximum sum in any one case is 24 months' salary and the University will make every effort to be flexible in accommodating an individual's preference for payment arrangements. Enquiries should be directed to the Vice President Academic, preferably through the Dean (Librarian or Director), although Dr. Smith is willing to have preliminary discussions with individuals.

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