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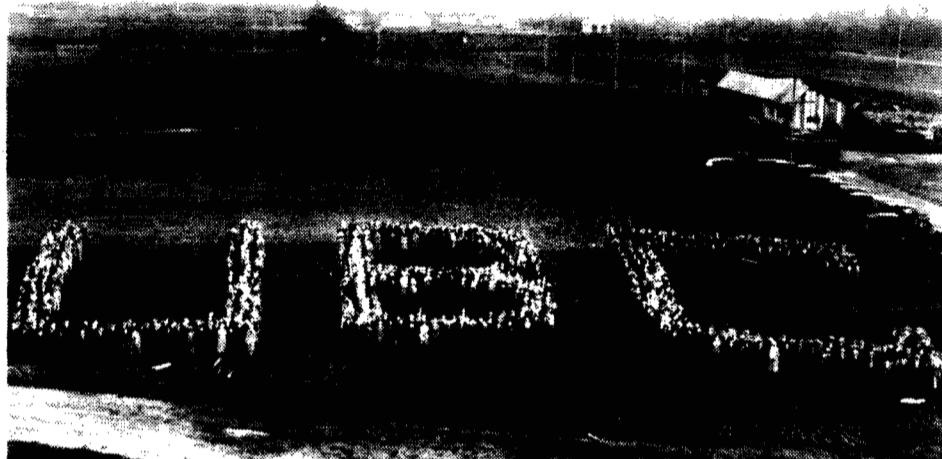


Photo courtesy UBC Archives

1990

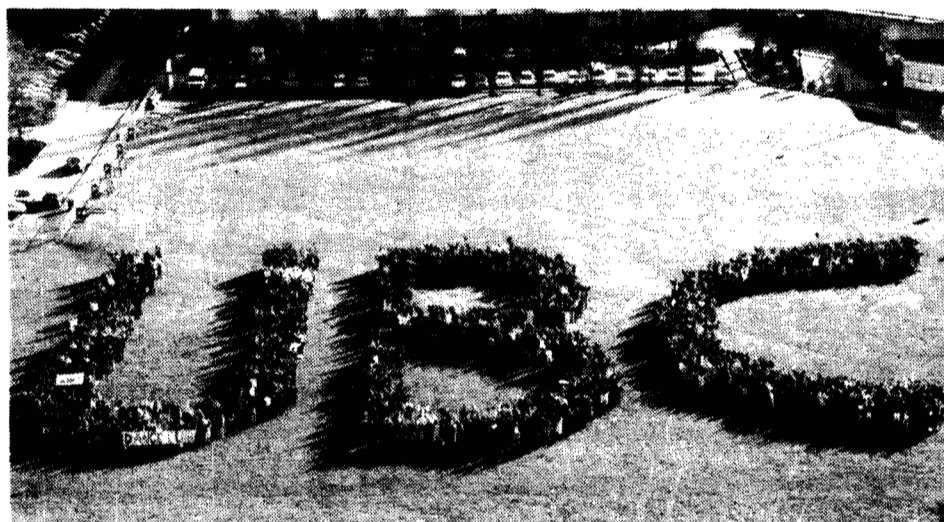


Photo by David Gray

History repeated itself at UBC when about 3,500 students, staff and faculty kicked off the university's 75th anniversary celebrations by recreating an historic campus photograph. The original (left) was taken during the Great Trek of 1922 to draw attention to demands for completion of the Point Grey campus.

# Reports

The University of British Columbia  
Vancouver, British Columbia

Volume 36, Number 2  
January 25, 1990



## Researchers Tiedje, Fryzuk

# Two win Steacie awards

By GAVIN WILSON

UBC researchers have claimed two of the four Steacie Memorial Fellowships for 1990-91, an award considered to be one of the country's highest honors for science and engineering.

Thomas Tiedje, Physics and Electrical Engineering, and Michael Fryzuk, Chemistry, were presented with the fellowship by William Winegard, Minister of State for Science and Technology, at a ceremony in Ottawa Jan. 16.

The fellowships are given annually to recognize outstanding achievements by scientists and engineers who are still at a relatively early stage in their careers. The winners are selected by the Natural Sciences and Engineering Research Council from top researchers nominated by universities across Canada.

Established in 1963, the fellowships are awarded in memory of Edgar Steacie, former president of the National Research Council and a Canadian research pioneer.

Prior to this presentation, only the University of Toronto had earned two fellowships in any given year.

Science Dean Barry McBride praised the fellowship winners for their outstanding achievement.

"Once again it shows how strong the sciences are at UBC," he said. "This kind of recognition for our faculty is a credit to the individuals, to their departments and to the university."

For the recipients, whose full salary is paid for one year under the fellowship, it means an opportunity to work fulltime on their research projects and to secure additional research funding from NSERC.

Tiedje, who last year was honored with the Canadian Association of Physicists Herzberg Medal, has made outstanding contributions to the physics of semiconductors. He played a key role in obtaining UBC's Molecular Beam Epitaxy machine and with colleagues is involved in Scanning Tunneling microscopy.

With his Steacie Fellowship, Tiedje plans to focus on the frontier technologies needed for the next generation of electronic devices for computers and communications systems.

Fryzuk is an inorganic chemist whose research has led to a better understanding of the fundamental principles controlling the structure and

reactions of organometallic compounds. In 1984, he was awarded a prestigious Alfred P. Sloan Fellowship, one of only two in Canada that year.

With his Steacie Fellowship, Fryzuk plans to investigate models for the absorption of hydrogen into metal lattices and to develop new procedures for the preparation of novel polymers.

Also winning Steacie Fellowships this year are John Smol, a limnologist at Queen's University, and Hector Levesque, a computer scientist at the University of Toronto.



Tiedje



Fryzuk

## UBC has key role in research on neutrino

By GAVIN WILSON

UBC is playing a key role in Canada's newest major scientific research project, the Sudbury Neutrino Observatory.

The \$61-million detector, to be located more than two kilometres underground near Sudbury, Ont., was given the green light by the federal government Jan. 4.

The observatory, essentially an enormous pool of heavy water surrounded by special sensors, will be built in a cavern as large as a 10-storey building in the deepest section of INCO's Creighton mine.

See RESEARCHERS on Page 2

# Poet Livesay heads the list of 28 honorary degree winners

By JO MOSS

Canadian poet Dorothy Livesay is one of 28 distinguished people who will receive honorary degrees from the University of British Columbia in 1990.

Degree recipients were approved by Senate at its Jan. 17 meeting.

Dates of conferring the honorary degrees have not been set, but some will be awarded at UBC's two graduation ceremonies: Spring Congregation on May 29, 30, 31 and June 1, and special Fall Congregation Nov. 29, or at the Fall ceremony which welcomes new and returning students, Sept. 27.

Degree recipients are scholars, artists, public servants, prominent persons in the community or the professions and others.

"What they have in common are their significant contributions to society—locally, nationally, or globally," said UBC President David Strangway. "UBC's honorary degrees recognize these distinguished achievements or outstanding contributions."

In addition to being one of Canada's greatest writers, Dorothy Livesay has had a lifelong concern for women's rights and the identity of women artists.

Honorary degrees will also be conferred on: Rosalie Abella, human rights activist; Simon Baker, an ambassador of Native culture; Jack Bell, businessman and humanitarian; Helen Belkin, alumna and life-long supporter of UBC; Sam Black, outstanding Canadian artist; Pat Carney, former federal member of Parliament; Caleb Chan and Tom Chan, brothers, businessmen and philanthropists; Rose Charlie, activist for social justice for Native peoples; Phyllis Chelsea, who singlehandedly revitalized her Native community; Ursula Franklin, pioneer in physical metallurgy; Arthur Hara, Chair of Mitsubishi Canada Ltd; Myer Horowitz, outstanding Canadian educator; Asa Johal, long-time advocate for the development of ethnic culture and education; Stephen Lewis, former Canadian ambassador to the United

Nations; Tong Louie, a leader in Vancouver's business community; Allan McEachern, B.C.'s Chief Justice; Beverley McLachlin, Supreme Court Justice; J. Fraser Mustard, President of the Canadian Institute for Advanced Research; Frank Patterson, internationally recognized surgeon; Howard Petch, President of the University of Victoria; Margaret Prang, outstanding teacher, scholar and administrator; John Polanyi, 1986 Nobel Prize winner in Chemistry; William Sauder, businessman and long-time university supporter; Jack Webster, journalist and broadcaster; William White, former UBC Vice-President and supporter; and Maurice Young, major contributor to business, education and athletics in B.C.



Polanyi

## Slash trucked to incinerator

Responding to complaints by local residents about slash burning at the Hampton Place development site, a senior university administrator says the remaining slash will be trucked elsewhere for disposal by high-temperature incineration.

Bruce Gellatly, vice-president, administration and finance, said stumps and slash will be trucked along Westbrook Mall to the extreme south end of campus where it will be incinerated in a pit using an air blowing combustion burner that eliminates smoke and odors.

The move is in response to complaints made after slash burns on the Thanksgiving weekend threw a pall of smoke over neighborhoods close to the

See BURNING on Page 3

## Inside

**NEW DEAN:** The Board of Governors is expected to confirm the appointment of Dr. Martin Hollenberg as the new Dean of Medicine. Page 2

**EARTHQUAKE TESTING:** Civil Engineering Professor Peter Byrne has developed a cheaper method of studying the effects of earthquakes. Page 4

**EATING CLINICS:** Outreach nurse Margaret Johnston and student Jennifer Wing are organizing Healthy Eating clinics for students. Page 9

# Board to vote on new Medicine dean

BY CONNIE FILLETTI

UBC's Board of Governors is expected to confirm today the appointment of anatomist Dr. Martin Hollenberg as the new dean of the Faculty of Medicine. The appointment is effective from July, 1990 to June, 1996.

Dr. Hollenberg, 55, replaces Dr. William Webber, who has served as dean of UBC's Faculty of Medicine for the past 13 years.

"I am delighted that Dr. Hollenberg will be returning to the University of British Columbia," Dean Webber said. "As departmental colleagues in the early 70s, we worked closely in areas of teaching and research. Since then he has had a distinguished academic career, both as an administrator and scholar. He brings to the deanship of the Faculty of Medicine at UBC an outstanding background and great enthusiasm."

Currently the Associate Dean of Research in the Faculty of Medicine at the University of Toronto, Dr. Hollenberg was a professor in UBC's Department of Anatomy between 1971 and 1975, as well as an honorary professor in the Department of Ophthalmology.

Prior to his first appointment at UBC, Dr. Hollenberg was an anatomy instructor at Wayne State University

and also spent several years at the University of Western Ontario in both the Department of Anatomy and the Department of Ophthalmology.



Webber

After leaving UBC in 1975, Dr. Hollenberg joined the University of Calgary as professor and head of Morphological Science. He then returned to the University of Western Ontario in 1978 where he served as the Dean of Medicine until 1985.

"I couldn't be more delighted to be coming back to UBC, this time as Dean of Medicine," said Dr. Hollenberg. "I view this as a great challenge and a great opportunity since there is a superb foundation to build on, excellent teaching hospitals and a dynamic faculty and student body. The future looks very bright indeed to me and, I'm sure that with imagination and hard work, there will be very little that we will not be able to accomplish together in the years ahead."

Dr. Hollenberg is a member of several provincial and national organizations including the Medical Research Council of Canada (MRC), the Re-

search Policy Committee of the Heart and Stroke Foundation of Ontario and the National Cancer Institute of Canada. He is also on the Executive of the MRC and chairs its Standing Committee on Research and Personnel Funding.

He has also served as a member of the board of directors of the Canadian Federation of Biological Societies, chairman of the Council of Ontario Faculties of Medicine and a member of the Council of the Association of Canadian Medical Colleges.

UBC President David Strangway said, "We are extremely fortunate to have a teacher, researcher and health-care professional the calibre of Dr. Hollenberg joining our Faculty of Medicine."

In 1987, Dr. Hollenberg was the recipient of the Distinguished Alumnus Award from Wayne State University.

His areas of research are retinal regeneration and high resolution scanning electron microscopy.

Dr. Hollenberg received both his BSc and MD from the University of Manitoba in 1958. He received his MSc and PhD in Anatomy from Wayne State University in 1964 and 1965 respectively, and was awarded the FRCPC from the Royal College of Canada in 1980.

# Researchers to test detectors

Continued from Page 1

It will probe the secrets of the neutrino, a sub-atomic particle that is one of the fundamental building blocks of nature. Thought to be the most abundant particle in the universe, the neutrino is produced in enormous quantities at the centre of stars, including our sun, yet it is extremely difficult to observe.

UBC Physicist Christopher Waltham and his team of researchers are designing and testing the light-sensitive detectors that will be used to track the elusive particle. They are working in collaboration with the departments of Chemistry, Microbiology and Metals and Materials Engineering. Also involved are Vancouver high-tech companies TIR Systems and Corona Vacuum Coaters.

"The impact of this project on both particle physics and astrophysics will be enormous," said Waltham. "It's one of the most interesting pieces of physics going on anywhere in the world."

Fifty times more sensitive than the best existing detectors, the observatory will be able to determine fundamental questions about neutrinos such as whether they have mass or whether they consist of pure energy.

The findings could profoundly affect our current understanding of the long term future of the universe, the energy generation processes of the sun and of the framework of the basic forces of nature.

The Sudbury facility will also become the world's best supernova detector. Although none of these massive exploding stars have been seen in our galaxy since 1604, astronomers suspect that dozens since then have gone unobserved because their light is



Photo by Media Services

UBC's Sudbury Neutrino Observatory team with reflectors they are testing for the facility. From left, Physics Professor Christopher Waltham, undergraduate Alan Poon, technician Ivor Yhap and graduate students Guy Ouellette and Reena Meiser-Drees.

blocked by cosmic dust clouds. Neutrinos, which are produced in vast numbers by a supernova, pass through dust clouds unimpeded.

In order to trap a few of the trillions of neutrinos constantly passing through the observatory, the cavern will hold a massive acrylic bottle containing 1,000 tonnes of radiation-free heavy water on loan from Atomic Energy of Canada Ltd. The bottle, itself immersed in a sea of ordinary water, will be 12 metres in diameter and only three centimetres thick, a major engineering feat in its own right.

Each interaction between the neutrino and the heavy water will produce a tiny flash of light which will be

monitored by an array of 6,000 light detectors, each the size of a large spotlight.

When completed in about five years, the observatory will be the most radiation-free place on Earth, a condition necessary for accurate detection of the neutrino.

Funding for the project comes from the National Research Council, the Natural Sciences and Engineering Research Council, Industry, Science and Technology Canada, the province of Ontario and the U.S. Department of Energy. Scientists from more than a dozen major research institutions in Canada, the U.S. and the United Kingdom will take part in the project.

## Letters to the Editor

### Tuition solution

Editor:

I agree with President Strangway's point (UBC Reports, Jan. 11) that "it's appropriate that students should pay a part of the operating costs." I also agree with a point President Strangway has often made: that the socio-economic mix of a student body is not very sensitive to changes in tuition levels, because tuition levels influence young people's education decisions a lot less than the encouragement or discouragement they get from their parents.

But why are the university decision makers, who are otherwise strong believers in market forces, so easily satisfied that in the case of education, the demand is insensitive to the price?

When I was preparing to go to university, my parents were not very enthusiastic about it. My father said he couldn't afford to support me any longer.

Parents are expected to make substantial contributions to the post-secondary education costs of their children, but many low-income parents will be unable to contribute.

Even though individual tuition increases will not directly and immediately prevent many young

people from coming to university, they will have an indirect, long-term cumulative effect because high education costs (or the perception of such costs) help motivate low-income parents to discourage educational aspirations in their children.

A just society will make every reasonable effort to rectify the low participation rate of bright students from low-income backgrounds.

But it's only fair that those who benefit from something should help bear its cost. The solution is a system of financing higher education that already flourishes in Australia and New Zealand: a sort of reversed pension fund. Instead of paying into the fund during your earning years and drawing an income later, one draws an income first and then pays into it during one's earning years.

This system is socially just: it makes the link between students and their parents' money as weak as we can reasonably make it. It also makes far more political and economic sense than the present system, despite some transitional startup costs.

**Kurt Preinsperg**  
Student Representative  
UBC Board of Governors

### Appalled at Administration

Editor:

We have read the Hampton Place "questions" and "chronology" included in the centre pages of your Nov. 30 issue.

We are appalled that the Administration has chosen this route to respond to the entirely reasonable requests for consultation by the faculty, staff, students and community on this misconceived project.

This is a cynical public relations campaign to justify a project that is widely acknowledged as being unacceptable in its present form. Moreover, it is a campaign that shows scant respect for the truth.

One of the many distortions on these pages affects us directly, and in pointing it out to you we simultaneously demand a written apology and a published retraction from the Administration and UBC Real Estate Corp.

In the chronology in September, 1989 a meeting held with concerned members of our association is de-

scribed as a "presentation to newly formed West Point Grey Residents' Association." Nothing could be further from the truth. This meeting was held at our initiative and was devoted to the discussion of our opposition to the proposed project.

In particular we were objecting to the manner in which this proposed project was being imposed on a community that had serious reservations about the nature and the purpose of the project, and our leading educational institution as a real estate developer.

We would also like to point out that there is no mention of the meeting organized by the AMS on Nov. 7, 1989, to which the Administration was invited, but chose not to attend.

How much more misrepresentation is included in these two pages?

**Essop Mia**  
Director  
West Point Grey Residents' Association.

### THE VANCOUVER INSTITUTE



**Saturday January 27**  
**Uneasy Bedfellows: Politicians and the Press**  
Geoffrey Stevens, Author and Journalist, Toronto, Ont.

**Saturday February 3**  
**Third World Debt: Their Problem or Ours?**  
Professor Paul Krugman, Department of Economics, Massachusetts Institute of Technology.

**Saturday February 10**  
**Earthquakes in British Columbia**  
Dr. Garry Rogers, Pacific Geoscience Centre, Victoria B.C.

All lectures in Lecture Hall 2, Woodward Instructional Resources Centre at 8:15 p.m.



**Driving Skills**

Photo by Steve Chan

UBC students got a chance to learn advanced driving skills in a new national program sponsored by Labatts and Ford of Canada. The road scholarship program is being conducted at universities across Canada.

# RCMP is reviewing AMS financial audit

By PAULA MARTIN

The RCMP are reviewing a recent audit of the Alma Mater Society which found financial irregularities in some AMS accounts.

RCMP Sgt. Brian Muir said police are reviewing the auditor's report to determine whether there are grounds for charges to be laid. He added that the review will take about two weeks.

AMS Director of Finance Karl Kottmeier resigned after the audit disclosed that he had used a hidden account for loans and advances to himself, as well as for pizza and beer, totalling about \$8,500.

AMS council voted not to press charges against Kottmeier.

"Council made a decision not to press charges in light of the fact that Karl had resigned from his position. To date, he has returned most of the funds and intends to return all of them," said AMS President Mike Lee.

The auditors' report found that documentation and approval standards for AMS accounts need to be strengthened.

The auditors also recommended that the AMS code of procedures be amended to prohibit signing officers from holding positions in any organization that might receive AMS funding and that AMS council and administrative commission members should

be required to sign conflict-of-interest guidelines.

The auditors also recommended tightening procedures related to budget preparation, cheque signing procedures, journal entry preparation, de-constitute clubs and club expenditures.

Lee said AMS council has accepted the recommendations made by Peat Marwick Thome and noted that the conflict of interest guidelines are very important.



Lee

"I think there is a greater awareness by people coming into office of their responsibility as signing officers," he said.

University administrators have not been formally involved in the audit review or outcome.

"Since the university collects the AMS fees, we have a natural concern about the use of those funds," said K.D. Srivastava, vice-president of student and academic services.

"We have not seen the auditor's report. However, from the reports published in the student newspaper, it would appear that the auditors have made excellent suggestions to the AMS which tighten budgetary and fiscal controls."

## Burning called safe

Continued from Page 1

university's real estate development at 16th and Westbrook.

"The university wishes to apologize to those who were concerned about the smoke from burning slash on campus that weekend," said Gellatly, who added that the new disposal site is far from student residences and daycare facilities.

The burner to be used is specifi-

cally designed to incinerate plant debris, including trees, stumps, brush and other untreated wood materials "in a safe, economical and environmentally acceptable manner," Gellatly said.

The disposal process, which has the support of University Endowment Lands Fire Chief W.J. Ferguson, will begin about mid-February and take about 15 days to complete. The university has contracted D. Litchfield and Co. for the job.

1915 - 1990



ANNIVERSARY

## Volunteers needed for 75th events

By RON BURKE

Like people? Are you free March 9-11? Want to be part of the largest university open house in Canada? Open House needs volunteers to act as information persons, give tours, handle stage and site management and trouble-shoot during any or all of the three days. Events will run from 10 a.m. to 5 p.m. across campus, but shifts are flexible and volunteers are needed for every venue.

What's in it for me, you ask? Well, in addition to the overall good feeling that comes from being part of a team doing something really worthwhile, you'll receive an official UBC souvenir and an exclusive preview of the major Open House activities. You'll also get to meet a lot of interesting people. For more information call **Michelle Hopkins** at 228-4989. And for everyone who is just a bit of a ham...

### OPEN HOUSE NEEDS STREET ENTERTAINERS

Jugglers, singers, musicians, clowns, actors, mimes, magicians — here's your chance to perform for throngs of people. Students, faculty, and staff with a special entertaining skill are needed to volunteer to perform for crowds at various times and venues across campus. For more information call **Erin Redden** at 228-4082.

### PLACER DOME JOINS THE TEAM

Placer Dome Co. has joined the Open House team and is sponsoring the world-famous Harvard Gold exhibit, which features more than 20 of the world's finest specimens, including one from B.C. The exhibit will be on display at the M.Y. Williams Geology Museum throughout Open House.

Corporate sponsors are welcome to participate throughout UBC's 75th anniversary. For more information call **Judy McLarty** at 228-2028.

### MAIN LIBRARY EXHIBIT

What was happening in the world the day you were born? **Julie Stevens** of Main Library is heading up the return of a popular and personalized Open House project that allows you to re-

search the day of your birth and then take home a copy of the newspaper headlines. There will also be a Parade from the Past exhibit of photos of UBC and music from 1915, archival video and memorabilia, plus a bargain-lovers' sale of used books, magazines, maps and records.

### KIDS' WORLD

Something new for Open House will be Kids' World at the Osborne Gym, featuring **Gary Pennington** of the School of Physical Education and Recreation. He will be teaching kids interactive games. They'll also have the chance to learn stilt-walking, ride unicycles and make kites. Kids' World will also feature science displays, puppet shows, entertainers, face-painting, mascots and more. Baby-sitting and child care services will be available.

### SPORTSFEST

UBC sports and recreation clubs, here's your opportunity to tell the world about yourselves. **Joan Webster** of Intramurals and **Kim Gordon** of Athletics are gearing up for Sportsfest, a celebration of the sports life and recreational activities at UBC. Festivities will be centred around the War Memorial Gym throughout Open House, with participating groups setting up booths and hands-on displays. For more information call **Joan** at 228-2203.

### UBC SUPER SALE IN JULY

Everyone loves a bargain, right? One of the many events slated for the Discover Summer at UBC program (May-August) is the SUPER Sale, based on the Special University Program to Encourage Recycling. **Vince Grant** of SERF, the campus Surplus Equipment Recycling Facility, and **Norm Watt** of Extra-Sessional Studies are organizing a one-day yard sale/recycling fair to be held July 28 on McInnes Field. Sale items will come from SERF and various other campus departments who will set up booths on the field and offer donated goods at bargain prices. There will also be information and displays on how UBC is committing itself to recycling.

COMING SOON

**STAEDTLER DAY**

Wed. Feb. 7th. • 8:30 am to 8:30 pm • one day only!

ALL STAEDTLER PRODUCTS **40-60% OFF**

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## Across Canada

# Deregulate universities, manufacturers say

Deregulation of universities is "the single most important step" in aligning post-secondary education with the goals of an aggressive economy, says the Canadian Manufacturers' Association (CMA).

"Universities require greater freedom to set fees, choose areas of specialization, and decide how to attract students, faculty, research funds, and private donors," the CMA says.

The document, entitled *The Aggressive Economy; Daring to Compete*, is described by CMA as a "winning strategy" designed to "line up all the forces at our disposal" behind the goal of improving international competitiveness.

In a chapter concerned with education and training at the post-secondary level, the document charges that the present funding and regulatory system under which universities function restricts them from organizing and administering themselves in ways that "make sense" in the new economic and competitive environment.

"Removing these constraints-through deregulation of the universities-should be a central goal of the shift towards an aggressive economy," it says.

The document echoes earlier calls for university deregulation that were outlined in the CMA's Task Force on Business Education Relations.

Pointing out that the goals of deregulation would go far beyond financial issues, the new policy document says that deregulation "would give universities greater freedom" to specialize.

"Instead of competing for students by offering the broadest possible range of subjects and degrees, universities could choose an area of specialty and concentrate on excellence in that area."

The CMA document also notes that other barriers to a more effective economic role for post-secondary education are created by the absence

of a unified national approach to education and a decade of underfunding by various federal and provincial governments.

### Ontario funding

Ontario universities will receive a net 2.2 per cent increase in their base operating grants in 1990-91 despite a recent government announcement of an eight per cent raise in funding, the University of Toronto Bulletin reports.

The net increase of 2.2 per cent is well below the rate of inflation now running at 6.3 per cent in Metro Toronto and 5.8 per cent across Ontario. Ontario universities say they need an 11.7 per cent increase to maintain the current level of service.

### Tuition fees rise

A report published by Statistics Canada indicates that 1989-90 tuition fees for undergraduate arts programs rose by four to 10 percent in most Canadian universities. The report, *Tuition and Living Accommodation Costs at Canadian Universities, 1988-89 and 1989-90*, does note some exceptions, especially in Quebec, where costs have hardly moved. Tuition fees in British Columbia range from \$1,550 to \$1,930. In the Prairie provinces, they vary from \$1,000 to \$1,480, compared with \$1,520 in Ontario. In the Atlantic provinces, students pay between \$1,700 and \$1,950. Fees are lowest in Quebec, at \$450 to \$570 a year. The report also reveals that at the undergraduate level, medicine and dentistry programs have the highest tuition fees, up to \$2,760. For foreign students, fees are highest in Quebec, while Newfoundland and Manitoba have no differential fees. To order the report, call 1-800-267-6677 toll free, and ask for catalogue number 81-219.



Photo by Media Services

Civil Engineering Professor Peter Byrne (left) and graduate student Li Yan with their new earthquake testing device. They are currently using it to simulate earthquake tremors on building piles.

# Cheaper device developed for testing earthquakes

By JO MOSS

UBC Civil Engineering Professor Peter Byrne has put earthquake testing within the budget of every researcher.

Up to now, earthquake scientists who wanted to study how structures that extend below the ground surface would perform during earth tremors have been hampered by the costs of building and housing a huge centrifuge machine to carry out tests.

To prove the old cliché, necessity was the mother of invention. Byrne and graduate student Li Yan have just finished testing a novel device which

is not only smaller and less expensive than the centrifuge machine, but delivers accurate information much faster.

"This model achieves the same results 10 times faster at a 100th of the cost," Byrne said. There has been keen interest in the device from scientists all over North America, he said.

A research institution could spend up to \$2-million to build a centrifuge machine which spins soil and other materials at the end of a 10-foot arm, simulating the effects of increased ground pressure. Because of its prohibitive cost, there are only a few cen-

trifuge machines in the United States, and, despite the fact that B.C. is one of the most seismically active areas of the world, none in Western Canada. (A small centrifuge at Queen's University is used for mining simulation).

Byrne and Li Yan developed a hydraulic gradient model which runs water through soil at extremely high rates to create the kinds of stressed soil conditions researchers look for. They have been using the device to predict the behavior of building piles, subjecting scale models to simulated earthquake activity.

## Breast self-examination

# Free clinic planned for Jan.31

BY CONNIE FILLETTI

The outreach program of UBC's Student Health Clinic will play host to a free, confidential breast self-examination teaching clinic for female students, faculty and staff on Jan. 31.

"We are involved in this health promotion with the Canadian Cancer Society because of the need to alert women of all ages to the need for practicing breast self-examination," said UBC outreach nurse Margaret Johnston. "Eighty per cent of breast lumps are detected by women themselves, either through breast self-examination or by chance. Although most are non-malignant, early detection by knowing what to look for is crucial."

One out of 10 women in a lifetime will have breast cancer, but only one in

four women practice breast self-examination, according to the Canadian Cancer Society. They maintain that properly conducted breast self-examinations contribute to early diagnosis of breast cancer. Through educational programs such as the teaching clinic, they hope to reduce the incidence of the disease.

"We want to teach women how to properly examine their breast tissue as an integral part of a healthy lifestyle," said Naomi Miller of the Canadian Cancer Society and volunteer coordinator of the clinic.

The clinics teach each woman how to examine her breast tissue. The technique is taught by volunteer nurses in private practice sessions.

Information on the influence of

lifestyles and diet on breast health, as well as information about mammography is also provided.

The breast self-examination clinic at UBC is a pilot project, but Johnston hopes it will become an on-going health promotion program on campus.

The clinic is by appointment only between 5:30 p.m. and 9 p.m. Call 228-7011.

## New health plans for retired profs

A new medical, dental and insurance plan for retired university faculty and librarians went into effect Jan. 1, thanks to the efforts of a new organization, the Professors' Emeriti.

A division in the Alumni Council, the group was started 18 months ago by the late Joe Katz, an Education professor who wanted to bring together the wide talents and experiences of retired faculty to help the university community.

The health plan was one of the group's first projects, as was compiling a list of addresses of all retirees.

Membership now stands at about 300 and represents the majority of faculty who have retired over the last 10 years, said Lewis Robinson, division president.

## Classified

Classified advertising can be purchased from Media Services. Phone 228-4775. Ads placed by faculty and staff cost \$6 per insertion for 35 words. Others are charged \$7. Monday, Jan. 29 at 4 p.m. is the deadline for the next issue of UBC Reports which appears on Thursday, Feb. 8. Deadline for the following edition on Feb. 22 is 4 p.m. Monday, Feb. 12. All ads must be paid in advance in cash, by cheque or internal requisition.

### For Sale

**SABBATICAL HOUSE EXCHANGE:** Large furnished 4 bedroom home in Waterloo, Ontario. Available from August 1990 to July 1991 for exchange or rent. Close to universities. Dr A. Santi, Department of Psychology, Wilfrid Laurier University, Waterloo, Ontario, (519) 884-1970 ext 2087.

### For Sale

**BLACK & WHITE ENLARGEMENTS:** from your negatives, individually hand exposed, cropped, dodged and shaded to your exact specifications. High quality papers in matte or high gloss finish. We can get the best from your sub-standard negative. Great prices, an 8x10 custom enlargement just \$5.70! call Media Services Photography at 228-4775. (3rd floor LPC, 2206 East Mall).

### Services

**VICTORIA REAL ESTATE:** Experienced, knowledgeable realtor with faculty references will answer all queries and send information on retirement or investment opportunities. No cost or obligation. Call collect (604) 595-3200. Lois Dutton, REMAX Ports West, Victoria, B.C.

**NOTARY PUBLIC:** for all your Notarial Services including Wills, Conveyancing and Mortgages, contact Pauline Matt, 4467 Dunbar St., (at 28th & Dunbar), Vancouver, B.C. Telephone (604) 222-9994.

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# Forestry student named B.C.'s Rhodes Scholar

By JO MOSS

Forestry student Jonathan Moss didn't know what kind of career he wanted until he took a year out of school to work on a Canadian overseas aid project in northern Kenya.

That was in 1985, shortly after a worldwide relief effort to stem the effects of a disastrous drought and famine in neighboring Ethiopia.

Hired as a forestry assistant, Moss found himself distributing famine relief supplies to the local nomadic population and building storerooms to house Canadian-donated grain, in addition to his work establishing tree nurseries and plantations.

The experience persuaded him to train for a forestry career in the developing world.

"I had decided I wanted to do forestry, but I hadn't decided exactly in what form or shape," Moss said. "That year was when I really came to the realization that I wanted to get back to the developing world."

Now his plans will get a boost. Moss, who hopes to graduate in May from UBC's Forest Resources program with a BSF, was recently awarded the 1990 Rhodes Scholarship for B.C. The scholarship will pay all study and travel expenses for him to pursue graduate work in tropical forestry for two years at Oxford University in England.

Moss hopes eventually to find work with a development agency in Africa, a part of the world that he confesses is important to him and that he can't wait to get back to. "It's an area of the world I really love," he said.

Born in Toronto, he grew up in Kenya and Nepal and completed his high school studies in England before returning to Canada to enrol in UBC's forestry program.

Last summer he paid his own way to a Canadian development



Photo by Media Services

Forestry student Jonathan Moss was recently awarded a Rhodes Scholarship which will pay for two years of study at Oxford University.

project in Nicaragua, where he and another forester from Quebec helped build irrigation systems. He spent two summers before that in northern B.C. working as a silvicultural assistant.

Moss considers himself lucky to have travelled so much. "Because of interacting with so many different cultures and so many places, inevitably it leads you to realize just how much there is to this planet of ours," he said. Not surprisingly, his favorite books are travel and biographies.

Rhodes Scholarship criteria call for success in sports, strong qualities of character and leadership and evidence of public service in addition to a high level of literary and scholastic achievement. Moss has all that and more.

During the past four years he has won numerous academic scholarships and over the last two years ranked first in his class. Faculty scholarship referees described him as the best forestry student in the last 25 years.

Moss is vice-president of an international development club on campus he helped start two years ago and is active in the Community

Forestry for Africa Network, an off-campus public information group. Chair of the United Church's outreach community programs, he is also involved in his faculty as student representative on the curriculum committee and faculty liaison officer for the Forestry Undergraduate Society.

It's becoming harder for Moss to find time for the outdoor activities he loves—hiking and climbing. "I haven't done as much this year as I'd really like to," he said. "I really miss it when I'm not spending at least every other weekend out there."

A competitive swimmer in high school, where he also played rugby, Moss swims, plays squash, cycles and has tried hang gliding and sky diving. A keen mechanic, he also speaks Spanish, some French and Swahili. And he's only 22 years old.

Moss describes it as keeping the horizons in life as broad as possible.

"There are a lot of opportunities out there and I want to make the most of them. Now is the time to try some of those things," he explained.

# Burns, Suedfeld to relinquish their deanships

UBC Law Dean Peter Burns and Graduate Studies Dean Peter Suedfeld will not be seeking reappointment as deans when their respective terms expire.



Burns

Suedfeld's term of office expires this June 30, Burns' at the end of June, 1991.

Suedfeld, a former head of the Psychology Department, plans to take a leave before he resumes his teaching duties and research activities.

Suedfeld's teaching interests include environmental and social psychology, while his research focuses on adaptation to harsh environments and health, personal and social psychology.

Suedfeld joined the Psychology Department as head in July, 1972 and was appointed dean in July, 1984.

Burns, a specialist in criminal law

and torts, joined UBC in 1968 and has been dean since July, 1982.

An author of numerous books and articles, he has been active in a wide range of professional



Suedfeld

and government advisory committees. In 1988 Burns was elected as Canada's nominee to the United Nations' newly formed Committee Against Torture.

James Dybikowski, associate vice-president of faculty relations, leaves his post at the end of this June.

Dybikowski, who was appointed to the position in July, 1984, will take a year-long leave before he returns to teach in the Philosophy Department.

A former head of the Philosophy Department, Dybikowski teaches Greek philosophy and focuses his research on eccentric late 18th century Welsh philosophers.

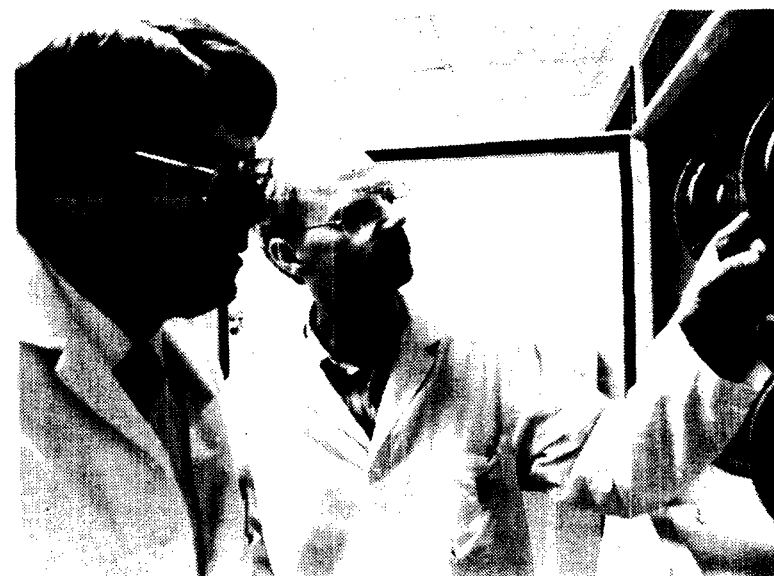


Photo by Media Services

Dr. Allen Eaves (left) and Dr. Keith Humphries examine the air handling control system for the Gene Transfer Laboratory.

# New gene laboratory to help cancer fight

BY CONNIE FILLETTI

A new UBC research facility will increase the university's ability to mount internationally competitive research programs aimed at finding a cure for cancer.

The gene therapy laboratory which opened on Oct. 3 and is the first of its kind in Canada, will provide UBC medical scientists with a facility to perform genetic engineering techniques (the introduction of new genetic material into cells) which continue to provide major insights into the nature and role of genes involved in human malignancy.

Their work will primarily focus on making healthy bone marrow cells used

in bone marrow transplantation resistant to the drugs currently used in cancer treatment, said Dr. Allen Eaves, head of UBC's Clinical Hematology department and director of the Terry Fox lab where the gene therapy lab is housed. This will allow chemotherapy to be continued after transplantation, to kill any residual cancer cells, he explained.

"These studies are a critical initiative in the exploding field of bone marrow transplantation," said Dr. Eaves. "Vancouver has the most advanced program in Canada, and is receiving world recognition in the area of bone marrow transplantation for leukemia."

Other research will concentrate on the therapeutic possibility of altering the properties of cells as a first step to correcting genetically based diseases. In some cancers the changes in genes may be blocked by introducing other genes which could arrest or prevent the progress of the cancer.

### House Wanted

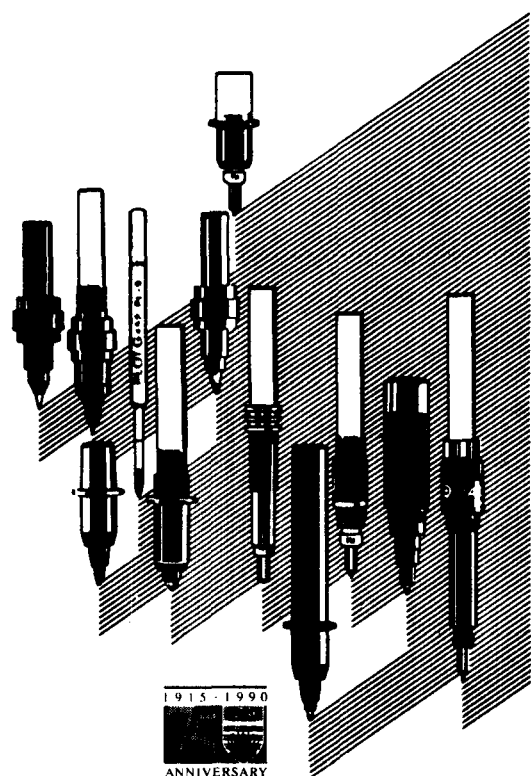
Professional family on sabbatical would like to rent a furnished 2 bedroom apt., or house (prefer West Side or Kits.) February - March, 1990. References available. 874-5486.

**STAEDTLER**  
**MARS PLOT**  
**DEMONSTRATION**  
MONDAY FEB. 5 10am-3pm

Today's state-of-the-art CAD systems demand precision plotter accessories.

Representatives from Staedtler-Mars and Roland Digital Group will be at the UBC Bookstore to introduce their new Plot Media and Cartridges. Don't miss this opportunity to ask the experts any questions you may have. They'll help you to get the most out of your plotter.

When you need quality plotter supplies, come to the UBC Bookstore Electronics Department for the complete range of Mars Plot drafting tools.



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ANNIVERSARY

# Calendar

January 28 – February 10

**SUNDAY, JAN. 28**

**Music at the Museum of Anthropology**

Chamber Music by Schoen Duo. Baroque Flute and violin. Free with museum admission: adults \$3, students \$1.50. Great Hall of the Museum at 2:30pm. Call 228-5087.

**MONDAY, JAN. 29**

**Asian Studies Lecture**

The Secret Hand: A Canadian Sikh and his Faith. Hugh Johnston, author and prof. History, SFU. Asian Centre 604 at 11:30am. Call 228-3881.

**Classics/Hellenic Society Lecture**

UBC's Excavations on Lesbos. Dr. Hector Williams, Classics, UBC. Hellenic Community Centre, 4500 Arbutus St. at 8pm. Call 228-4059

**Koerner Lecture**

The Challenge of Faithfulness for the Jewish People in the Age of the Holocaust. Prof. Marc Ellis, Religion, Culture and Society Studies, Maryknoll School of Theology, Buchanan A-202 at 12:30pm. Call 228-6523.

**VST-Religion and Conflict Seminar**

Beyond Innocence and Redemption: A Jewish reflection on the Palestinian Intifada. Prof. Marc Ellis, Religion, Culture and Society Studies, Maryknoll School of Theology. Board Room, Vancouver School of Theology, 6000 Iona Drive at 4:15pm. Call 228-6523.

**Pediatric Research Seminars**

Calbindin-D9k, a Calcium Binding Protein in Intestine, Placenta and Uterus. Dr. J. Krisinger, Obstetrics/Gynaecology, UBC. University Hospital-Shaughnessy Site D308 at 12noon. Refreshments at 11:45. Call 875-2492.

**Biochemistry Seminar**

Activation and Repression of Expression from the Cytomegalovirus Enhancer by Viral Proteins. Dr. Ed Mocarski, Stanford U. IRC #4 at 3:45pm. Call 228-6914.

**Lectures in Modern Chemistry**

Electron-Transfer Chemistry in Microporous Solids. Dr. T. Mallouk, Chem., U. of Texas. Chemistry Bldg. B250 at 1pm. Refreshments from 12:40pm. Call 228-3266.

**Astronomy Seminar**

Perspectives on Galaxy Formation: The Globular Cluster Conundrums. Dr. Jim Hesser, Dominion Astrophysical Observatory, Victoria. Geophysics/Astronomy 260 at 4pm. Coffee from 3:30pm. Call Harvey Richer at 228-4134/2267.

UBC Reports is the faculty and staff newspaper of the University of British Columbia. It is published every second Thursday by the UBC Community Relations Office, 6328 Memorial Rd., Vancouver, B.C., V6T 1W5. Telephone 228-3131. Advertising inquiries: 228-4775. Director: Margaret Nevin Editor-in-Chief: Don Whiteley Editor: Howard Fluxgold Contributors: Connie Filletti, Paula Martin, Jo Moss and Gavin Wilson.

**CALENDAR DEADLINES**

For events in the period Feb. 11 to Feb. 24 notices must be submitted by UBC faculty or staff on proper Calendar forms no later than noon on Wednesday, Jan. 31 to the Community Relations Office, 6328 Memorial Rd., Room 207, Old Administration Building. For more information call 228-3131. Notices exceeding 35 words may be edited.

**Mechanical Engineering Seminar**  
Two graduate student speakers: Sensor Design for Machine Tools with Doug Richardson and Jet Interactions in a Recovery Boiler with Jeff Quick. Civil and Mechanical Engineering Bldg. 1202 at 3:30pm. Call 228-6200.

**Applied Mathematics Seminar**  
Some Applications of Differential Geometry to Rod Theory. Dr. Hilton Ramsay, Mech. Eng., UBC. Mathematics Bldg. 229 at 3:45pm. Call 228-4584.

**Employment Equity Information Session**  
Sharon Kahn, Director, Employment Equity, UBC. Chem. Bldg. 126 from 12:30-1:30pm. Call 228-5454.

**Monday Nights at the Faculty Club**  
The Life, Times and Painting of Velazquez. With slides. Dr. Derek Carr, Hispanic and Italian Studies, UBC. Free admission. Club Music Room at 8pm. Call 228-2708.

**TUESDAY, JAN. 30**

**Institute of Asian Research Seminar**  
Exploring the Perception Gap in Japan Series. Current Trends in Japanese Overseas Investment: Implications For Theory and Canadian Public Policy. David Edgington, Geography, UBC. Asian Centre 604 at 12:30pm. Call 228-4688.

**Statistics Seminar**  
Nonparametric Estimation of Non-stationary Spatial Covariance Structure for Environmental Monitoring Data. Dr. Paul Sampson, Statistics, U. of Washington. Ponderosa Annex C-102 at 4pm. Call 228-3167.

**Geography Colloquium**  
Squamish Wind: Damned Cold Air. Peter Jackson, Atmospheric Sciences, UBC. Geography 200 at 3:30pm. Call 228-6959.

**Fine Arts Lecture**  
Evolving Concern: The Prints of Steve Nelson. Steve Nelson, Emily Carr College of Art & Design. Lasserre 107 at 12:30pm. Call 228-5753.

**Fine Arts Seminar**  
Content and Technique: Steve Nelson Lithographs. Steve Nelson, Emily Carr College of Art & Design. Printmaking Hut M-22, West Mall at Agricultural Road at 2pm. Call 228-5753.

**Graduate/Faculty Christian Forum**  
Faith and The Social Sciences. Lecture and discussion with Dr. David Ley, Geography, UBC. Buchanan Penthouse at 4:30pm. Coffee at 4:15pm. Call 228-3112/3268.

**Faculty Development Project Workshop**  
Demonstration: Conducting Effective Labs. Dr. W. Godolphin, Pathology, UBC (VGH). Scarfe 1326 from 4-5pm. Call 222-5249.

**Women In Development Lecture**  
Invisible Lives and Unheard Voices: Women, Development and Change? Helga E. Jacobson, Anthropology, UBC. Geography 223 from 12:30-1:30pm. Call 228-5875.

**Employment Equity Information Session**  
Sharon Kahn, Director Employment Equity, UBC. IRC #75/76 from 12:30-1:30pm. Call 228-5454.

**WEDNESDAY, JAN. 31**

**Orthopaedics/General Surgery Combined Grand Rounds**  
Trauma: Keeping Score. Chairman, Dr. R. N. Meek; Guest: Dr. Robert McMurtry. G.F. Strong Rehab. Centre Auditorium at 7am. Call 875-4646.

**Pharmacology Seminar**  
Pharmacokinetics of Antimicrobial Agents in Rainbow Trout. Dr. R. A. Wall, Pharm. and Therapeutics, UBC. IRC #5 from 11:30-12:30pm. Call 228-2575.

**Music Wednesday Noon-Hour Series**  
Purcell String Quartet. Tickets \$2 at the door. Music Recital Hall at 12:30pm. Call 228-3113.

**Religious Studies Colloquium**  
The Book of Job: A Conservative Reading. Prof. Paul Mosca. Buchanan B212 at 3:30pm. Call 228-6322.

**THURSDAY, FEB. 1**

**Pediatrics Specialty Lecture**  
Expert Guest Lecture Series in Maternal and Child Nutrition. Enteral and Parenteral Delivery of Calcium and Phosphorous to Meet the Needs of Growing Low Birthweight Infants: Practical Approaches to Management. Dr. Stephanie Atkinson, Paediatrics, McMaster U. Lunch provided. Children's Hospital Rm. 3D16 at 12noon. Call 875-2492.

**Psychiatry Academic Lecture**  
Spirit Possession and Mental Health. Dr. Colleen Ward, Psychology, U. of Canterbury, Christchurch, New Zealand. St. Paul's Hospital Hurlburt Auditorium from 8-9am. Coffee and muffins at 7:45am. Call 228-7325.

**Combined Obstetrics/Gynaecology Seminar**  
Growth Requirements of the Early Mammalian Conceptus. Amy Brice, Oxford U., England. Grace Hospital 2N35 at 1pm. Call 875-2334

**Regional Mass Spectrometry Discussion Group**  
Application of Mass Spectrometry (MS) and MS/MS To Structural Analysis of Metabolites and Peptides. Dr. Lester Taylor, Burroughs Wellcome, Research Triangle Park. Chemistry Bldg. D225 at 10am. Call 228-3235.

**Geological Sciences Visiting Speaker Series**  
Regional Geology of the Stikine Terrane, Central B.C. Tom Richards of Tom Richards Prospecting. Geological Sciences 330A at 12:30pm. Call 228-3508.

**Robotics and Automation Lecture**  
CICSR Distinguished Lecture Series. Dynamic Legged Robots. Dr. Marc H. Raibert, Artificial Intelligence Lab, Electrical Eng. and Computer Science, MIT. Scarfe 100 from 1-2pm. Call 228-6894.

**Economics Lecture**  
E.S. Woodward Lecture Series. Thinking About the Debt Problem. Dr. Paul R. Krugman, Economics, MIT. Buchanan A106 at 12:30pm. Call 228-3849/4129.

**Office for Women Students Workshop**  
Stress Management - Using Creative Journals. One-session workshop. Free admission. Registration required. Brock 106 from 12:30-2:20pm. Call 228-2415.

**Music Program**  
Jazz Quintet. Free Admission. Music Recital Hall at 12:30pm. Call 228-3113.

**FRIDAY, FEB. 2**

**Forestry Seminar Series**  
An Ecological Perspective on Clearcutting of B.C.'s Forests. Dr. Karel Klinka, Adjunct Professor, Forest Sciences, UBC. MacMillan 166 at 12:30pm. Call 228-2727.

**History Lecture**  
Getting On With Life: Women and the Family in Canada, 1945-1960. Dr. Veronica Strong-Boag, History and Women's Studies, SFU. Buchanan A102 at 12:30pm. Call 228-2561.

**Economics Seminar**  
Bank Reserving, Secondary Prices and the Transformation of Debt Strategy. Dr. Paul R. Krugman, Economics, MIT. Brock 351 at 4pm. Call 228-3849/4129.

**Chemical Engineering Weekly Seminar**  
The Application of Rapid Immunoassay Techniques to Animal Cell Fermentation Monitoring. Eric Jervis, Graduate student, Chem. Engineering, UBC. Chem. Engineering Bldg. 206 at 3:30pm. Call 228-3238.

**Health Care/Epidemiology Rounds**  
The Measurement of Socioeconomic Status: A Tale of Different Scales. Dr. Neil Guppy. Mather Bldg. 253 from 9-10am. Call 228-2772.

**Pediatrics Grand Rounds**  
Nutritional Management of Low Birth Weight Infants: How Do We Know What is Too Much or Too Little? Dr. Stephanie Atkinson, Nutritional Biochem., Peds., McMaster U. GF Strong Rehab. Centre Auditorium at 9am. Call 875-2117, Loc. 7107 or 7118.

**Graduate Student Society Poetry Sweatshop**  
Write a poem on a given topic in 15 minutes. Poetry Sweatshop Poets. All welcome. Grad Student Centre Fireside Lounge at 6pm. Call 228-3203.

**Music Program**  
UBC Contemporary Players. Stephen Chatman and Geoffrey Michaels, directors. Free admission. Music Recital Hall at 12:30pm. Call 228-3113.

**SATURDAY, FEB. 3**

**Museum of Anthropology Children's Story Hour**  
East Indian Stories. Mary Love May, renowned storyteller and popular performer at The Children's Festival. Children aged 3-6, must be accompanied by a parent. MOA Orientation Area at 11am. Call 228-5087.

**Centre for Continuing Education Workshop**  
Reconciling the Generations: Grandparent-Parent Relationships. Jennifer Shifrin, Specialist in Communication Disorders and Family Counselling. Fee: \$50. Bring lunch. Hillel House from 9am-5pm. Call 222-5238.

**Music Faculty/Guest Artist Concert Series**  
Orford String Quartet. Music Recital Hall at 8pm. Tickets, 228-3113.

**MONDAY, FEB. 5**

**Physiology Seminar**  
Winter Seminar Series. Spinal Cord Function After Injury. Dr. D. McCreagh, U. of Manitoba. IRC #5 at 4:45pm. Call 228-2083.

**Pathology - Special Lecture**  
Pathogenesis of Experimental Alcoholic Liver Injury. Dr. A. Nanji, Clinical Chemistry, New England Deaconess Hospital, Boston. VGH Taylor/Fidler Theater, AV UBC Vassar Room from 9-10am. Call 875-4577.

**Pediatric Research Seminar**  
Metabolism of Medium-Chain Triglycerides and Ketone Bodies During Early Development. Dr. Nancy Auestad, Research Associate, Paeds., UBC. University Hospital-Shaughnessy Site D308 at 12noon. Refreshments at 11:45am. Call 875-2492.

**Biochemistry Seminar**  
The Calcitonin Story. Dr. D. Harold Copp, Prof. Emeritus, Physiology, UBC. IRC #4 at 3:45pm. Call 228-3027.

**Institute of Asian Research Seminar**  
Worklife in Japan: Past and Present Series. Factory Automation and Work Process in Japan. Prof. Bernard Bernier, Anthropology, U. de Montreal. Asian Centre 604 at 12:30pm. Call 228-4688.

**Faculty Development Project Seminar**  
Valuation of Teaching for Tenure/Promotion. UBC Faculty Panel: Dr. N.M. Sheehan, Dean, Education; Dr. J.O. Caswell, Head, Fine Arts; Dr. B.G. Turrell, Head, Physics. Scarfe 1326 from 3:30-5:30pm. Call 222-5249.

**Monday Nights At The Club**  
The Meech Lake Accord - The Pros and Cons. Dr. Charles Bourne, Prof. Emeritus, Law, UBC. Free admission. Faculty Club Music Room at 8pm. Call 228-2708.

**TUESDAY, FEB. 6**

**Lectures in Modern Chemistry**  
2D NMR Structural Studies of Mutant and Wild-Type Zinc Fingers. Dr. R. Klevit, Biochemistry, U. of Washington, Seattle. Chemistry B250 at 1pm. Refreshments from 12:40pm. Call 228-3266.

**Geography Colloquium**  
GIS and Geography. Prof. Michael Goodchild, Co-director, National Centre for Geographic Information and Analysis (USA) and Geography, U. of Calif., Santa Barbara. Geography 200 at 3:30pm. Call 228-6959.

**Statistics Seminar**  
Mortality and Cancer Incidence in Workers at the Alkane Aluminum Plant in Kitimat. John Spinelli, BC Cancer Research Centre. Ponderosa Annex C-102 at 4pm. Call 228-3167.

**Music Lecture**  
Pre-eminent Soviet composer Rodion

Schedrin. Music Recital Hall at 12:30pm. Call 228-3113.

**Music Students Recital**

In the Spotlight. Free admission. Music Recital Hall at 8pm. Call 228-3113.

**Faculty Women's Club Meeting**

The work of two prominent women at UBC. Dr. J. Levy, Microbiology and Dr. M. Salcudean, Head, Mech. Engineering. Husbands and guests welcome. Cecil Green Park House at 9:45am. Call 224-5307.

**WEDNESDAY, FEB. 7**

**Chemistry Departmental Seminar**

Electronic and Geometric Structures of Small Unstable Molecules by Experiment and Theory. Dr. N.P.C. Westwood, Guelph Waterloo Centre for Graduate Work in Chemistry and Biochemistry, U. of Guelph. Chemistry C126 at 12:30pm. Call 228-3266.

**Geophysics Seminar**

Numerical Models of Mantle Convection. Dr. Gary T. Jarvis, Earth and Atmospheric Science, York U., Downsview. Geophysics/Astronomy 260 at 4pm. Coffee at 3:45pm. Call 228-5406/2267.

**Applied Mathematics Seminar**

Tethered Satellite Systems: Dynamics and Control Strategies. Dr. V.J. Modi, Mechanical Engineering, UBC. Mathematics 229 at 3:45pm. Call 228-4584.

**Pharmacology Seminar**

Neurochemistry of Cholinergic Nerve Terminals. Dr. Brian Collier, MRC Visiting Professor, Pharm./Therapeutics, McGill U. IRC #5 from 11:30-12:30pm. Call 228-2575.

**Orthopaedics Grand Rounds**

No Conference today. Call 875-4156.

**Classics Lecture**

Marathon Monstrosities. Prof. Gordon Shrimpton, Classics, UVIC. Buchanan A204 at 12:30pm. Call 228-2889.

**English Poetry Reading**

Sponsored by Canada Council. Abraham: A Poem of Recognition and Recovery. Colin Browne, Writer and Filmmaker, SFU. Buchanan Penthouse from 12:30-1:20pm. Call 228-5129.

**Music Wednesday Noon-Hour Series**

Gregory Cox, trombone; Nancy Bussard, piano. Tickets \$2 at the door. Music Recital Hall at 12:30pm. Call 228-3113.

**Free Breathing Techniques Class**

Chi Leung Breathing Practices for Health, Relaxation, Meditation and Strengthening. Free admission. Faculty Club Music Room at 12 noon. Call 228-2708.

**Graduate Student Society**

Female Grad Support Network informal panel discussion. Success is Possible. Drs. Maria Klawe, Head, Computer Science, N.E. Salcudean, Head, Mech. Engineering and Nancy Sheehan, Dean, Education. Grad Student Centre Garden Room at 12:30pm. Call 228-3203.

**THURSDAY, FEB. 8**

**Combined Obstetrics/Gynaecology Seminar**

Hormonal and Other Influences on Fetal Water Metabolism. Dr. Anthony Perks, Zoology, UBC. Grace Hospital 2N35 at 1pm. Call 875-2334.

**Psychiatry Academic Lecture Program**

Eating Disorders Group. Speaker to be announced. St. Paul's Hospital Huribert Auditorium from 8-9am. Coffee and muffins at 7:45am. Call 228-7325.

**Geological Sciences Visiting Speaker Series**

Round-Up Week. No visiting speaker. Call 228-3508.

**Planning Lecture Series**

Negotiation in Sustainable Development: The Twin-Tracking and Galiano Experience. Andrew R. Thomson, Law, UBC. Lasserre 102 at 12:30pm. Call 228-5725.

# Calendar

January 28 – February 10

**UBC Symphony Noon Concert**  
UBC Symphony Orchestra. Eric Wilson, director. Free admission. Old Auditorium at 12:30pm. Call 228-3113.

**Vancouver School of Theology Mutchmor Lectures**  
J.R. Mutchmor, The Man, The Times, The Issues. An evaluation of the 1940s and 50s in United Church History, II:30am. From Ashes to Fire-The Challenge of the Past to the Present and Future. Exploring leadership for contemporary society, 7:30pm. Both lectures, The Very Rev. W. Clarke MacDonald in the Chapel of the Epiphany, 6050 Chancellor Blvd. Call 228-9031.

**Happy Birthday Aquarians Party**  
Meet your fellow faculty Aquarians in a unique evening. Faculty Club Main Dining Room at 6pm. Call 228-3803.

**FRIDAY, FEB. 9**

**Faculty Development Project Workshop**  
Stress: The Complex Lives of the Contemporary Academic. Clarissa G. Green, Assoc. Prof. Nursing, UBC. Buchanan Penthouse from 9am-12noon. Call 228-5249.

**UBC Symphony Evening Concert**  
UBC Symphony Orchestra. Eric Wilson, director. Free Admission. Old Auditorium at 8pm. Call 228-3113.

**Institute of Asian Research Seminar**  
Worklife in Japan: Past and Present Series. Multi-functional Versus Single-functional Worker: Efficiency for Whom? Prof. Tomomichi Yoshikawa, Research Assoc., IAR, UBC, on leave from Econ./Bus. Admin., Yokohama City U. Asian Centre 604 at 12:30pm. Call 228-4688.

**Chemical Engineering Weekly Seminar**  
Solids Circulation in Spouted and Spout-Fluid Beds with Draft Tubes. James Muir, Graduate student, Chem. Eng., UBC. Chem. Eng. 206 at 3:30pm. Call 228-3238.

**Health Care/Epidemiology Rounds**  
Technology Diffusion: The Troll Under the Bridge. Dr. Arminee Kazanjian, Assoc. Dir. Health Services R&D, UBC and Kathy Friesen, MSc. Mather Bldg.253 from 9-10am. Call 228-2772.

**Social Sciences Lecture Series**  
The Golden Age of Russian Literature. Dr. Peter Petro, Slavonic Studies. Continuing Mondays until Feb. 26. Fee: \$54. Lasserre 105 from 7:30-9pm. Call 228-5237.

**NOTICES**

**THE VANCOUVER INSTITUTE**

**Sat. Feb. 3**  
Third World Debt: Their Problem or Ours? Prof. Paul Krugman, Economics, MIT.

**Sat. Feb. 10**  
Earthquakes in B.C. Dr. Garry Rogers, Pacific Geoscience Centre, Victoria.  
All lectures at 8:15 pm in IRC #2.

**Frederic Wood Theatre**  
Co-production with the School of Music. Sweeny Todd: The Demon Barber of Fleet Street. Music and Lyrics by Stephen Sondheim. Book by Hugh Wheeler. Director, French Tickner. Continues through Feb. 3. Reservations recommended. FWT curtain time, 8pm. See Room 207 of FWT or call 228-2678.

**Speakers Bureau**  
More than 200 faculty and professional staff available to speak to your group, usually without a charge. Topics range from Dream Analysis to The Impact of Television on Young People. Call 228-6167.

**Faculty Development Project Workshop**  
Designing and Using Tests in University Courses: Workshop in Two Sessions. Dr. R.F. Conry, Assoc. Prof., Educ. Psychology/Special Education, Wednesdays Feb. 7 and 21. Family and Nutritional Sciences 30 from 2:30-4:30pm. Call 228-5249.

**Office for Women Student Services Workshop**  
Assertiveness for Women: Three-session workshop. Basic communication skills for a wide range of social settings. Free admission. Registration required. Tuesdays, Feb. 6, 13 and 20th. Brock 204D from 12:30-2:20pm. Call 228-2415.

**Centre for Continuing Education Reading, Writing and Study Skills Centre**  
Increase your reading speed and comprehension, improve your written communication, prepare for the English Composition Test. Still some space available in non-credit courses. Communication courses starting in February/March include Media Interview Techniques, The Writer's Craft, Travel Writing and the Artful Business of Freelance Writing. Call 222-5245.

**Language Programs and Services**  
French in Action multimedia language program, Levels I-V. Tuesday and Thursday evenings, Thursday afternoons and Saturday mornings. Beginner Spanish, Japanese, Mandarin and Cantonese, Tuesday evenings and Saturday mornings. Elementary and advanced levels in all languages, Thursday evenings. Business Japanese Level I and II and Teaching Languages to Adults also available. Spanish Immersion Program in Cuernavaca, Mexico, Feb. 26-Mar. 16. Call 222-5227.

**The Religions of Tibet: A Survey of Their History and Practices.** Dwight A. Tskatschow, doctoral candidate, Religious Studies, U. of Toronto. Tuesdays, Jan. 30-Mar. 6. Fee: \$85. Family/Nutritional Sciences 40 from 7:30-9:30pm. Call 222-5237.

**Journey Inward, Journey Outward: A Survey of the World's Religions: Eastern through to the New Age Movement.** Linda Christensen, sessional lecturer, Religious Studies, UBC. Wednesdays. Section I, Jan.31-Feb.21; Section II, Mar. 7-28. Fee: \$56 each or \$98 for both. Call 222-5237.

**The Tantric Tradition.** Dwight A. Tskatschow, doctoral candidate, Religious Studies, U. of Toronto. Thursdays, Feb. 1-Mar. 8. Fee: \$85. Lasserre 107 from 7:30-9:30pm. Call 222-5237.

**Media Literacy: Behind the news.** George Somerville, CBC Paris correspondent. Mondays, Feb. 5 and 12. Fee: \$36. Family/Nutrit. Sciences 40 from 7:15-9:30pm. Call 222-5237.

**Lifestyle Programs**  
Workshop: Reframing Self-Image and Building Self-Esteem. Dr. Arthur Ridge-way, Reg. Psychologist. Fee: \$120. Bring Lunch. Sat./Sun., Feb/3/4, Health Sciences Psych Unit 2N A/B from 9am-5:30pm. Call 222-5238.

**Hypertension in Pregnancy Study**  
Pregnant women, concerned about their blood pressure, are invited to participate. The study compares relaxation training with standard medical treatment (own physician). Call Dr. Wolfgang Linden at 228-4156.

**Dermatology Acne Study**  
Volunteers 13-30 years with moderate to severe acne required. Must be able to attend 5 visits over a 12-week period. Honorarium \$50 to be paid upon completion. Call Sherry at 874-8138.

**Daily Rhythms Study**  
Volunteers needed, aged 30-40 and living with a heterosexual partner, to keep a daily journal (average 5 min. daily) for 4 months. Participants will look for patterns in their physical and social experiences. Call Jessica McFarlane at 228-5121.

**Post Polio Study**  
Persons with polio needed for functional assessment and possible training programs. Elizabeth Dean, PhD, School of Rehabilitation Medicine. Call 228-7392.

**Multiple Sclerosis Study**  
Persons with mild to moderately severe MS needed for study on exercise responses. Elizabeth Dean, PhD, School of Rehab. Medicine. Call 228-7392.

**Back Pain Research**  
Volunteers needed for magnetic resonance imaging of healthy spines-men and women aged 18-60, non-pregnant, no pacemakers, no intracranial clips and no metal fragments in the eye. University Hospital employees excluded. Call June 8am and 4pm, Monday-Thursday at 228-7720.

**Psychology Study**  
Opinions of teenage girls and their parents on important issues surfacing in family life. Volunteers needed: 13-19 year old

girls and one or both of their parents. Call Lori Taylor at 733-0711.

**Lung Disease Subjects Wanted**  
School of Rehab Medicine is seeking interstitial lung disease subjects in order to study the effect of this disorder in response to submaximal exercise. Call Frank Chung at 228-7708.

**Sexual Harassment Office**  
Two advisors are available to discuss questions and concerns on the subject. They are prepared to help any member of the UBC community who is being sexually harassed to find a satisfactory resolution. Call Margaretha Hoek or Jon Shapiro at 228-6353.

**Statistical Consulting and Research Laboratory.**  
SCARL is operated by the Department of Statistics to provide statistical advice to faculty and graduate students working on research problems. Call 228-4037. Forms for appointments available in Room 210, Ponderosa Annex C.

**Volunteering**  
To find an interesting and challenging volunteer job, get in touch with Volunteer Connections, Student Counselling and Resources Centre, Brock Hall 200 or call 228-3811.

**Agricurl**  
Late afternoon curling. Experienced curlers and those wishing to learn are welcome. Thunderbird, Tuesdays, 5:15-7:15. Call Paul Willing, (228-3560 or Alex Finlayson, 738-7698 (eve).

**Badminton Club**  
Faculty, staff and Grad Student Badminton Club meets Thursdays, 8:30-10:30pm and Fridays, 6:30-8:30pm in Gym A of the Robert Osborne Sports Centre. Fees, \$15 until April with valid UBC Library card. Call Bernard at 731-9966.

**Walter Gage Toastmasters**  
Wednesday. Public Speaking Club Meeting. Speeches and tabletopics. Guests are welcome. SUB at 7:30pm. Call Sulan at 597-8754.

**Fitness Appraisal**  
Physical Education and Recreation, through the John M. Buchanan Fitness and Research Centre, is administering a physical fitness assessment program. Students, \$25, others \$30. Call 228-4356.

**Surplus Equipment Recycling Facility**  
All surplus items. Every Wednesday, noon-3 pm. Task Force Bldg. 2352 Health Sciences Mall. Call 228-2813.

**Neville Scarfe Children's Garden**  
Located west of the Education Building. Free admission. Open all year. Families interested in planting, weeding and watering in the garden, call Jo-Anne Naslund at 434-1081 or 228-3767.

**Botanical Garden**  
Open every day from 10am-3pm. until mid-March. Free admission.

**Tobacco Garden**  
Open Monday to Friday, 10am-3pm until mid-March. Free admission.

## UBC Reports ad deadlines

UBC Reports is now distributed by the Vancouver Courier on the west side on alternate Sundays

Edition	Deadline 4 p.m.
Feb. 8	Jan. 29
Feb. 22	Feb. 12
March 8	Feb. 26
March 22	March 12
April 5	March 26
April 19	April 9

**For more information, or to place an ad, phone 228-4775**

*People*

# Copp awarded Rorer prize

Dr. Harold Copp, founding head of UBC's Department of Physiology, has been awarded The Rorer Foundation International Prize for Progresses in Therapy.

The award was in recognition of Dr. Copp's discovery of calcitonin at UBC in 1961, a hormone in use worldwide for the treatment of osteoporosis.

Osteoporosis is the loss of calcium from the bone, making it brittle and easily broken. It is the third leading cause of death in women over 60, after heart disease and cancer.

Dr. Copp was head of the Department of Physiology from its inception in 1950 until his retirement in 1980. He remains active in research at UBC.

The award was presented to Dr. Copp at the recent International Congress on Osteoporosis in Rome.

UBC's Dean of Commerce Peter Lusztig has been appointed to a one-person commission by Agriculture and Fisheries Minister John Savage to investigate problems in B.C.'s \$145-million fruit industry.

For the last six years, the government has subsidized the troubled industry to the tune of \$59-million.

Lusztig, who participated in an earlier royal commission on the automobile insurance industry in 1956, has been asked to develop solu-

tions and a long-range industry strategy. Operating on an unusually tight time frame, he is scheduled to report to Cabinet by March, 1990.

During the next three months, Lusztig will carry out a financial analysis of all industry sectors, including production, packaging, processing and marketing, and identify the constraints and opportunities which affect the industry. Hearings will be held at five sites in the Okanagan and in Creston.

Lusztig has appointed three experts to the commission: Agricultural Economics Professor and Department Head Richard Barichello, as director of research; Law Professor Joost Blom, as commission counsel; and UBC alumnus David Buchan, currently employed by the Ministry of Agriculture, as commission secretary.

Basil Stuart-Stubbs, director of the School of Library, Archival and Information Studies, is the first Canadian to be appointed to the board of directors of the Council on Library Resources.

The Washington, D.C.-based council was established in 1956 to help libraries take advantage of emerging technologies to improve operating



Lusztig

performance and expand services for an increasing number of users.

Stuart-Stubbs, who also teaches management of libraries and archives, and publishing and the book trade in Canada, began his term in November.

Judith Johnston, director of UBC's School of Audiology and Speech Sciences, has received the Editor's Award from the American Speech-Language-Hearing Association for her article, Generalization: The Nature of Change.



Johnston

Johnston's article discusses the reasons why language education for atypical children frequently leads to limited improvement. It also includes suggested strategies for making this education more effective.

Johnston is a developmental psychologist and speech-language pathologist with expertise in children's language learning.

The article appeared in the association's research journal, Speech, Language, Hearing Services in Schools. This is the second time Johnston has been the recipient of the award.

English Department Professor Andrew Parkin has been honored by the Council of Editors of Learned Journals, a U.S.-based, international professional association of editors.

Parkin, who retired in 1988 as editor of the Canadian Journal of Irish Studies, was named most distinguished retiring editor of a learned journal. He was cited for excellence in editorial performance.

Parkin, who teaches drama and Irish literature, edited the journal for 14 years before stepping down.

Setty Pendakur, a professor in the School of Community and Regional Planning, has been appointed to the board of advisors of Canadian Bionic Research Ltd.

Pendakur, who teaches housing and transportation infrastructure and planning for developing countries, will advise on public health, environmental and transportation issues in relation to miniaturized technology.

Canadian Bionic Research Ltd. is concerned with miniaturization in electronics and its application in the public health field.

## Pharmacy features interactive displays at Open House

UBC's Faculty of Pharmaceutical Sciences hopes to help people live better lives by demonstrating how pharmaceutical research has led to improved drugs and dosage forms and to a deeper understanding of disease and treatments during Open House.

An interactive approach to the design of many of the events and displays in development will encourage the public to actively participate, said Simon Albon, chairman of Pharmaceutical Sciences' Open House project.

Visitors to the faculty during Open House can have everything from their blood pressure to their home-made wine tested. Other demonstrations planned include: ear and eye drop administration; breathalyzer testing; liver function diagnosis; pregnancy testing; analysis of antibiotic residues in farmed fish; and urine testing for steroids.

The manufacturing and professional practice labs will also be open to the public for demonstrations on the small-scale production of tablets, capsules, suppositories and creams. Complementing this activity will be a slide presentation showing the manufacture of tablets by industry, from receipt of raw materials to dispatch of final products.

Another highlight will be the brown bag program, a special service for seniors during Open House.

The program, organized through the Seniors' Drug Action Program and sponsored by the provincial government, encourages seniors to collect

their medications in a specially provided brown bag. UBC pharmacists will be on hand to review the medications currently taken by the patient, then counsel them on their proper use. The pharmacists may also screen for potential drug interactions and alert the patients about their concerns.

A presentation of the Nordic Laboratories video, Mr. Finley's Pharmacy, will also be featured. Aimed at children age seven to nine, the drug awareness and safety video teaches youngsters about prescription drugs and the role of the pharmacist.

A few of the other attractions include: historical displays of early contraceptive devices and pharmaceutical implements and artifacts; a poison prevention booth; patient medication counselling; a poster presentation on prescription pricing; and a slide presentation on blood disorders which may give some clues to folklore about vampires and werewolves.

All five divisions within the Faculty of Pharmaceutical Sciences — Clinical Pharmacy, Pharmacology and Toxicology, Pharmacy Administration, Pharmaceutical Chemistry and Pharmaceutics — are participating in the Open House project.

"This is a completely student organized and operated event," said Albon. "Their incredible enthusiasm is running the whole show. They're working hard, with the assistance of faculty members, to ensure there's something for everyone who visits us at the Cunningham Building and the IRC. It will be an entertaining and educational three days."

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386SX-40 (40 MB hard drive & VGA display)	\$6,329	\$5,169
386SX-100 (100 MB hard drive & VGA display)	\$6,899	\$5,719

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# Eating clinics to help students with diet

By CONNIE FILLETTI

UBC's Outreach Nurse Margaret Johnston was worried, but not surprised, when a student told her that she ate spaghetti most nights because it was cheap and easy to prepare.

That's why Johnston and fourth-year Family and Nutritional Sciences student Jennifer Wing have organized Healthy Eating clinics for UBC students.

"We're trying to promote eating for good health," said Johnston. "The clinics have nothing to do with dieting. Approximately 95 per cent of diets fail. Our aim is to educate students about sound eating habits now that will last a lifetime and support an overall healthy lifestyle."

Anyone with an eating disorder such as bulimia or anorexia is referred to the Student Health Service which, in cooperation with the Student Counselling and Resource Centre, sponsors a treatment group.

Johnston said the majority of participating students either live on their own or in campus residences. They have poor eating habits for a variety of reasons. Most complain they don't have time to eat properly. Students dash from classes to recreational activities to social engagements, grabbing whatever is readily available, Johnston said. "Lunch is often a chocolate bar or a muffin."

Others simply don't know how to cook, or buy the wrong foods because they are cheap. "They're not making wise food choices," Johnston said.

Engineering student Kristine Edwards began attending the clinics to learn more about what she should and shouldn't eat. Edwards realized she wasn't eating well and decided to do something about it.

"Living on my own, I rarely cooked a meal for myself," said Edwards. "I would order pizza or Chinese food, eat at McDonald's or just skip meals in-



Photo by Media Services

Margaret Johnston (left) and student Jennifer Wing check the facts on food for UBC students interested in eating for health.

stead. The clinics provide me with easy access to the information I need to make healthy food choices. Now, I'm trying to use that information in my day-to-day living."

Students attending the clinics learn how to identify their current eating patterns and how to recognize the strengths and weaknesses of their diet.

They also receive information on making wise food choices based on the four food groups in Canada's Food Guide, in addition to facts on a variety of subjects including calories in alcohol, fats in fowl and vegetarian diets.

The group also provides support to its members to help them implement changes to their diet and achieve, as

well as maintain, a healthy body weight.

Other issues which may affect eating habits such as time management, stress management, self-acceptance and exercise are also part of the clinics' approach to educating about healthy eating techniques. In addition, students may learn tips about eating during festive occasions, residence food and dining in restaurants, such as choosing a tomatoe-base pasta sauce instead of a cream-base sauce from the menu.

Each clinic operates for four consecutive weeks. Johnston and Wing meet the participants once each week for an hour-long session at lunchtime. For more information, call 228-7011.

## Driving tours

# Research units join in 75th

UBC's two research forests and research farm may be located in distant parts of the province, but they too will be part of the university's 1990 celebrations.

UBC's Oyster River Research Farm on Vancouver Island is taking steps in 1990 to make sure the growing number of visitors get the most out of their visit to the 640-hectare research facility.

During the late spring and summer, farm director Niels Holbek estimates up to 3,000 people pull off the highway to see the working dairy farm with its Holstein herd, associated agricultural research projects, forestry research areas and affiliated salmon hatchery.

Many of them are tourists or people visiting friends and relatives in the area. "If they have any kind of farming background, their hosts bring them along to see the research farm," Holbek explained.

With numbers steadily increasing, it's almost getting to be a problem, Holbek said. Groups of seven or more visitors are offered a guided tour, but the 10 permanent farm staff can't ac-

commodate smaller groups or individuals. Plans for 1990 include producing a self-guiding brochure and map which visitors can pick up at the entrance and follow a marked route through the facility, Holbek said.

In addition, the Oyster River Research Farm will hold its annual open house Sunday, July 8. The following Monday it will open its doors for Producer's Day, an event geared to local dairy and beef farmers.

Research farm staff are currently building a scale model of the farm to display during UBC's Open House in March. They anticipate more than 100 hours of accumulated time will go into the model that visitors will be able to view in the Faculty of Agricultural Sciences Building on campus.

On Saturday, June 23, the UBC/Malcolm Knapp Research Forest will lift its ban on vehicles to invite the public to take a driving tour of the forest. The rare opportunity is planned in celebration of UBC's 75th anniversary and will be the first, and perhaps only time visitors will be able to tour by car the 5,153-hectare site with its scenic backcountry views and quiet

lakes on the foothills of Golden Ears Mountain. Deer, rabbits and other wildlife abound throughout the area.

Visitors will be guided through a set route and able to stop at feature areas along the way which highlight aspects of current forestry research. More than 550 research projects have been initiated since 1950 and much of the work has garnered international recognition. A training ground for future foresters, the research forest is used by UBC, Simon Fraser University, private researchers and federal and provincial government researchers.

Visitors will be able to view old growth forest, check out the display of logging equipment and see cedar split into shakes.

UBC's 9,000-hectare Alex Fraser Research Forest, located less than 60 kilometres from Williams Lake, will hold its first Open House in Spring, 1990. Resident forester Ken Day said a public display of management plans for the area is scheduled, outlining proposed harvesting and silvicultural operations and road construction. The public has unrestricted access to the area for recreational activities.

# Computer helps logging trucks stay on the road

By JO MOSS

On a routine trip down a steep mountain road, the log truck driver notices on his computerized display that the oil temperature in the truck's rear differential is climbing. He is on the radio to the dispatcher immediately to say he's coming in to the maintenance shop to have the differential checked.

Sophisticated computer electronics warned the driver of possible mechanical failure avoiding a potential accident and saving the logging company a costly repair bill. Such vehicle monitoring systems may soon make this scenario commonplace in B.C. logging operations.

UBC Forestry Professor Glen Young and MacMillan Bloedel are currently developing and testing such a system on three of the company's 25 logging trucks in the Franklin River Division, near Port Alberni. Now in its second year, the project is funded by the Canadian Forestry Service.

"It's a pro-active system which alerts the driver and dispatcher if any of the critical mechanical components are operating outside of the normal operating range," explained Young, a forest engineer and computer specialist. "It has the potential to save major engine wear and failure."

The system promises to reduce the number of expensive truck repairs, keep more vehicles on the job by keeping them out of the maintenance shop and decrease accidents caused by vehicle failure.

It also aids in more efficient use of the truck fleet by relaying information from all vehicles to a central dispatcher, where an electronic map indicates the location of vehicles in the logging area and their status in a near real-time display.

"Dispatchers can better determine where the trucks are and make better plans," Young said. "It will eliminate trial and error."

Hardware and installation will cost about \$10,000 per vehicle. But while those figures may seem high, the alternatives are even higher—between \$40,000 and \$60,000 to repair a major engine failure and about \$350,000 to purchase a new log truck.

Young estimates the system the pay-back period for the system will be about one to one and a half years. Once it's proven to be commercially viable and accepted by the forest industry, new trucks could roll off the assembly line at the factory with the system already installed, Young said.

The system works through 28 sensors installed throughout the truck measuring critical areas such as oil pressure, temperature and level in the engine and drive train. Every five seconds, readings are taken and relayed to the driver on the in-cab display, transmitted to the dispatcher, and stored in the base computer for later retrieval. Daily truck performance reports allow detailed performance analyses and prediction of mechanical failure.

Similar systems are being developed elsewhere for other transport sectors, but "forestry has its own set of problems," Young explained. Part of his task is to prove the system can improve the efficiency and safety of log hauling in the harsh environment of coastal logging.

"We're quite optimistic about the potential of this technology in our industry," he said.

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# Report on Tuition Fees

There are many perceptions about tuition fees at The University of British Columbia and the level of student aid available. The following questions are among those that are often asked. We are providing a set of answers to these common questions for all members of the University community.

1. **Q.** How does the undergraduate arts and science tuition at UBC compare with that at other universities across Canada.

**A.** The list below shows that the 1989-90 Arts and Science tuition fee is less than that in the Maritime universities and less than \$100 higher than that in Ontario.

1. Mount Allison	\$1935
2. University of New Brunswick	1875
3. Acadia University	1870
4. St. Francis Xavier U.	1825
5. King's College	1808
6. Mount Saint Vincent U.	1780
7. St. Mary's University	1780
8. Universite de Sainte Anne	1760
9. Prince Edward Island	1720
10. Dalhousie University	1710
11. University of Moncton	1675
12. UBC	1605
13. Simon Fraser University	1560
14. University of Victoria	1545
15. University of Toronto	1520
16. University of Waterloo	1518
17. University of Western Ontario	1517
18. Queen's University	1517
19. McMaster University	1516

In Quebec, tuition is \$550 and has been set at that level for many years. It will increase by 130% over the next two years to over \$1200.

Tuition in Alberta is	1,069
Tuition in Manitoba is for Arts and for Science	1,332
Tuition in Saskatchewan is	1,500
Tuition in Newfoundland is	1,344
	1,280

2. **Q.** What changes are planned for the coming year - 1990-91?

- A. a.** In Quebec, tuition will increase by 130% in the next two years.  
**b.** In Ontario tuition will rise by 8%.  
**c.** At UBC tuition is planned to rise by 4.8% to \$1685.  
**d.** At SFU it is planned to rise by 5.3% to \$1,650.

3. **Q.** People often ask how our undergraduate arts and science tuition compares to that at the major private universities in the United States.

**A.** A more useful question is how does it compare to that at major state-supported universities. This is a sample list for comparable major U.S. state universities (in state fees) for 1988-89.

University of California, Berkeley	\$1672(\$U.S)
University of Illinois	2788
Indiana University	2183
Purdue University	2032
University of Iowa	1826
University of Maryland	2069
University of Minnesota	2226
State University of New York	1485
Ohio State University	2190
Penn State University	3634
University of Washington	1827
University of Wisconsin	2004
UBC	1432 (\$US)

4. **Q.** How do graduate tuition fees compare with other Canadian universities?

**A.** Tuition is usually divided into program and post-program fees. Program fees are those charged during the required residence period for the degree sought while the post-program fee is that paid for the years beyond the required program. A sample of these fees for 1989-90 is provided.

	Total* 2 yr. Masters	Post Program Fee	Total* 3 yr. Ph.D.	Post Program Fee
Alberta	2002	104	2704	104
Dalhousie	3660	285	5490	285
Manitoba	3306	180	4959	180
Saskatchewan	2096	477	3715	477
Toronto	3810	762	5715	762
Western	3093	341	5161	341
UBC	3198	855	4683	855
SFU	3234	702	4116	702
U.Vic.	3130	627	4695	627

\*These total amounts are not necessarily paid in equal installments in each of the two or three years.

5. **Q.** Does UBC charge a higher tuition for international students attending UBC on student visas?

**A. a.** At the undergraduate level students on student visas are charged 2 1/2 times the Canadian (or residents) fee. But this increment is waived in cases in which students are attending UBC on formal exchange agreements, either directly with other universities or where the students are sponsored by agencies such as CIDA. Less than 1% of our undergraduates are here on student visas. We plan to increase this to about 5%. The practice of higher tuition for international students is common to all universities across Canada.

**b.** At the graduate level international students pay the same tuition as Canadian students. Nearly all universities in Canada require graduate students to pay tuition that is 2 to 2 1/2 times that paid by Canadian students. At present 22% of our graduate students come from outside Canada.

6. **Q.** How has the tuition changed in the past few decades?

<b>A.</b>	Tuition Fee	Tuition Fee Indexed to the Vancouver CPI 1989- 90 = 100.0
1965-66	372	1552
1975-76	428	1048
1985-86	1275	1463
1989-90	1605	1605

When corrected for inflation, tuition levels at UBC have changed remarkably little in the past twenty-five years and more.

7. **Q.** Do we have higher tuition rates for students in professional programs?

**A.** There are higher tuition levels in most professional programs. At UBC these can be as high as \$2,762 for students in Medicine and in Dentistry.

8. **Q.** What proportion of the university's operating revenues is derived from the tuition fees and how has this changed over time?

<b>A.</b>	Credit Course Fees as % of University Operating Budget*
1964-65	30.0
1974-75	11.1
1984-85	13.9
1987-88	14.9
1988-89	15.1
1989-90	15.1

\*This is the percentage of the operating budget only. The operating budget is quite separate from the capital budget.

9. **Q.** Since there was a 10% increase in tuition for 1989-90, why should there be any increase in 1990-91?

**A.** The 10% increase for 1989-90 was composed of two parts. One part reflected the ongoing increases in operating costs.

The second part reflected the fact that the university did not have a balanced base budget. Substantial cuts were taken in the budgets of all parts of the university to ensure that we could approach a balanced base operating budget. Costs of university expenses such as supplies, materials for laboratories, computing access, library books and many other items rise in cost faster than the rate of inflation. To be sure that we can retain and attract the best faculty and staff our salaries must continue to return to a competitive level. Much has been done in this regard, but more still needs to be done.

10. **Q.** What is meant by accessibility?

**A.** This word is widely used by different people to mean different things. From the student point of view it may mean any of the following.

- Can I afford to go to University?
- Am I academically qualified to be admitted to a University?
- Can I be admitted to the program of my choice or at a location of my choice?

From the university point of view it can have quite different meanings such as;

- Are qualified and outstanding students, who wish to, able to attend university without financial barriers?
- With the funds available from government and from tuition, how many students can we responsibly provide with a quality education?

11. **Q.** What has the university done to ensure accessibility from the point of view of adequately funded places for students?

**A. a.** University places were expanded in the 1960s when two other universities were created in the province. Community Colleges were created and were given the responsibility to provide first and second year university transfer programs. These steps provided more places for post-secondary students and at many locations around the province. In UBC's draft mission statement released in the summer of 1988, the university argued for more degree granting places at locations outside the Lower Mainland. UBC now has an active partnership with Cariboo College and Okanagan College to provide degree granting opportunities outside the lower Mainland. Similar programs exist at Malaspina College with the University of Victoria and there are active plans for a degree granting institution in Prince George. These have been funded by the Access Program announced by the provincial government in March 1989. This increase in places to ensure accessibility was strongly encouraged by UBC. The plan announced in March, 1989 will increase accessibility by 15,000 places.

Some of these will be at four (possibly five) new locations.

Demand for places at the graduate level is also increasing sharply. UBC plans to increase accessibility at this level. We expect to be adequately funded to create these new places. The provincial five year accessibility plan calls for a significant increase in places at this level also.

b. We have fought hard to ensure that our revenue increased fast enough so that we did not have to reduce the numbers of faculty and students. Operating grants from the province covering their share of the university's operating revenue have risen in the past two years at rates above inflation. We welcome the plan of the provincial government to provide funding on a per student basis that will rise to nationally competitive levels.

12. Q. What steps has UBC taken with regard to provincial student aid?

A. We have encouraged the provincial government to introduce a major new student aid program. This was done in 1987-88. In 1989-90 UBC handled \$30.0 million of B.C. Student Assistance, Canada Student Loan and other provincial assistance.

13. Q. What assistance does UBC provide directly for undergraduate student scholarships and bursaries?

A. In the 1988-89 session, from endowment and trust funds UBC provided approximately \$1.9 million in scholarships and bursaries to all students. The endowment funds supporting undergraduate awards now total \$23 million. Approximately \$450,000 is awarded each year in UBC funded student loans. The development campaign is raising substantial endowments to provide additional scholarship and bursary assistance to a wide range of students. These funds privately raised are being matched by the provincial government. There is also a new Canada scholarship program that in 1989-90 provided \$400,000 to students in science and engineering.

From the operating budget UBC provided a total of \$1.7 million for undergraduate scholarships and for undergraduate and graduate bursaries in 1988-89. In 1989-90 we allocated an additional \$300,000 from the operating fund to the bursary program and started to assign \$100,000 a year of parking fine money to endow a bursary program that is eventually scheduled to reach a level of \$1,000,000.

Since 1988-89 the province has matched all endowed scholarships that

were provided for undergraduates. This alone led to an endowment base increase of \$1.0 million. This is entirely separate from campaign matched donations. A four-year summary for student awards is shown below.

14. Q. Does UBC provide work opportunities for undergraduate students?

A. We administer about \$1,000,000 from the provincial work-study program. In addition to this many units on campus (e.g. Athletics, AMS, Library, Student Housing, Food Services etc.) provide direct part-time work opportunities estimated at several million dollars per year.

15. Q. What provision is made to support graduate students?

A. Sources of support include internal fellowships and teaching assistantships both from the operating budget and research assistantships from research grants and contracts. There are also a number of endowed scholarships and awards as well as fellowship support from external bodies such as NSERC, CIDA and many others. The total expenditure in these categories in the 1988-89 fiscal year was approximately \$22.4 million.

In 1989-90 an additional \$1,000,000 was added to the graduate fellowship budget and \$750,000 was added to the teaching assistantship budget.

Graduate awards are also a target of the fund raising campaign and we are having considerable success in this. These endowments are matched by the provincial government.

16. Q. Is there a financial advantage to individual students because they have graduated from university?

A. The unemployment rate among university graduates is much lower than it is for non-graduates. It has been estimated that (including the effect of foregone income during the student years) the rates of return on the "investment" in tuition is 10% per year. This is a remarkable return on investment indeed for those who are privileged to attend university.

17. Q. How do the people of British Columbia feel about tuition?

A. A recent public opinion poll shows that 83% believe that students should pay tuition. 66% believe that the present tuition level is about right or even too low.

18. Q. Where can I learn more about the question of tuition in Canadian universities?

A. David Stager published a book in 1989 called "Focus on Fees" on behalf of the Council of Ontario Universities. This book examines many aspects of the tuition question. A major conclusion is that tuition levels have very little effect on accessibility to university. In fact the mix of the population that attends university is almost the same whether there is no tuition, whether it is as low as in Quebec or as high as it is in the Maritimes.

19. Q. How is the fund raising campaign helping students?

About half of the \$132 million target will provide new academic buildings - including a new library and a new Centre for the Creative and Performing Arts. This will include studios and spaces for the Fine Arts departments. Independently of the campaign the provincial government has included three buildings that will be funded in the five year government plan. These include Forestry Science, Advanced Materials and a Centre for Integrated Computer Systems at a further cost of \$75 million. All of these will provide new spaces for students and faculty for teaching and research. In addition, government has approved the funding for a student services complex to be built adjacent to Brock Hall. We expect to start construction in the Summer/Fall of 1990.

The other half of the campaign, about \$66 million, will largely fund endowed chairs and endowed scholarships and bursaries. Already we have commitments that will lead eventually to 20 endowed chairs in all parts of the university. Some gifts of equipment are also being received.

Private donors have been encouraged in their giving by the provincial matching program and in general have been pleased to have their gifts allocated to the priorities that were established by the university consultation with faculties and departments. The Case Statement includes stated needs in all parts of the university.

1915 - 1990



ANNIVERSARY

**STUDENT AWARD ENDOWMENTS  
(GRADUATE & UNDERGRADUATE - INCLUDING THE KILLAM FELLOWSHIP FUND)**

Fiscal Year	Endowment Principal (March 31) (\$ million)	Expenditures (\$ million)
1985-86	\$24.38	\$2.33
1986-87	29.85	2.37
1987-88	34.04	2.65
1988-89	36.04	2.86

(NOTE: A part of the income from the Killam Fellowship Fund is also used for Senior Research Fellows and Killam Post-Doctoral Fellowships. In 1988-89 the principle amount of the Killam Fellowship Fund was approximately \$13 million, with an expenditure of \$1.3 million. Over 60 per cent of this expenditure was on graduate fellowships.)

**STUDENT AWARD STATISTICS & EXPENDITURES FROM ALL SOURCES**

	Number* of Students on Scholarship	Expendi- ture on Scholar- ships	Number of Students on Bursaries	Expendi- ture on Bursaries	Number of Univ. loans to students	Expendi- ture on Univ. Loans	BCSAP Appli- cations	BCSAP Amount	Number of Work- study Awards	Expendi- tures on Work-study	Total Numbers of Awards	Total Amount (loans plus bursaries & scholarships)
1985-86	1,626	\$1,900,727	1,308	\$1,530,771	527	\$368,916	5,378	\$19,733,573	598	\$599,250	9590	24,133,237
1986-87	1,828	2,143,625	1,252	1,507,080	585	397,957,291	5,291	21,442,476	731	734,414	9707	26,242,572
1987-88	1,697	2,161,569	1,194	1,449,615	744	558,848,548	5,489	23,634,540	760	867,000	9884	28,672,572
1988-89	1,835	2,228,490	1,072	1,303,512	625	453,133,546	5,546	25,824,661	792	992,633	9870	30,872,419**

\*Note: Excludes graduate fellowships and a few minor graduate scholarships.

\*\*More than 90% of this was spent for undergraduate awards.

*10 years as department head*

# Hindmarch steps down

By JO MOSS

**I**n Bob Hindmarch's 35-year association with UBC he has been star athlete, football, hockey and basketball coach, director of intramurals, physical education professor and athletics and sport services director.

Now, after 10 years as head of UBC's Athletics and Sport Services Department, Hindmarch, 59, is making another change. He will step down when his current term ends June 30, 1991.

"It's sure gone quickly," said Hindmarch, adding that the next 18 months will give him time to consider his plans for the future. So far, he has decided only to take some time off.

As a student, Hindmarch was one of the university's most versatile athletes playing on four Varsity teams — football, baseball, hockey and basketball—and captaining the first two.

The first football game he ever saw, he recalls, he was dressed and ready to play. "I had been to practices but I had never seen a game before. We didn't have TV," he said.

Hockey practices for the Varsity team were an hour's ride away on the streetcar at Vancouver's old Forum.

Hindmarch graduated in 1953 from UBC's Physical Education program with the university's outstanding male athlete award and



Bob Hindmarch

taught and coached at a New Westminster high school after graduation.

When he returned to the campus in 1955 as assistant football coach, the area where the War Memorial Gym and Aquatic Centre now stand was forest and bush. In addition to his coaching duties, he was director of intramurals, and taught 26 hours a week, including Saturday mornings.

"It was crazy," Hindmarch reminisces. But fun.

After 10 years as football coach, he switched to hockey coach after managing the Canadian Olympic hockey team which was based at UBC in 1963/64. It was the first of many teams Hindmarch took to the Olym-

pics and the beginning of a close affiliation with the Canadian Olympic Association. He has served as COA vice-president for the last nine years and was Director and Chef de Mission at the 1984 Olympics in Sarajevo, Yugoslavia.

Along the way, he found the time to earn a Master of Science degree in 1959 and a Doctor of Education in 1962 from the University of Oregon.

Hindmarch resigned from coaching 14 years ago and taught sports medicine in the School of Physical Education and Recreation before becoming athletics and sport services director in 1980. At that time the university was going through a difficult period financially, and Hindmarch found himself a fundraiser as well as head.

One of the best things the university ever did, he says, was introduce the athletic fee to ensure athletic programs continuous support. "It put the structure of athletics onto a proper footing on which to work."

Hindmarch says UBC's sport and athletic programs are currently number one.

"We are the best structured organization in the country and it reflects in all the programs. There's not one of our programs, Intramurals, Recreation, Community Sports or Athletics that I can think of that another university in the country does better," he said.

The UBC athletic program have produced more Olympic and Commonwealth Games athletes than any other

Canadian university, and the second largest number of national champions in Canadian Interuniversity Athletic Union competition next to University of Toronto, he said.

Hindmarch says there have been many high points in his directorship — more than can be counted — but has enjoyed most the enthusiasm of our great student athletes.

Off-campus, Hindmarch has been active in community sport at all levels throughout his career. An original member of the group which attempted to get the Winter Olympics for Whistler Mountain, he was president of the Vancouver Olympic Committee for four years.

Chair of the Hockey Development Council of Canada from 1977 to 1980 and Director of the Canadian Amateur Hockey Association from 1969 to 1980, he has served as President of the B.C. Sports Federation and as chair of the federal government's sport and fitness programs

He is currently director of the Man-in-Motion World Tour, chair of the B.C. Summer and Winter Games Advisory Committee and member of the B.C. Sport Advisory Committee.

Hindmarch says he is looking forward to the future. "I love my university, I love being here and doing what I do. But the change for me will be very good, and good for the department."

*Saturday morning series*

## Science lectures lure teens

By GAVIN WILSON

Luring teenagers to a classroom on a Saturday morning is not easy. But the Science Faculty's lecture series is doing it for the third consecutive year.

About 55 Grade 11 students travel from as far away as Aldergrove, Port Moody and White Rock to attend the 10 a.m. lecture and demonstration series, which regularly features some of the university's best teachers and researchers.

"These students are showing a real commitment. They're full of enthusiasm," said Alan Carter, who coordinates the series from the office of the Dean of Science.

The goal of the program, initiated by then Acting Dean of Science David Dolphin, is to expose students in the Lower Mainland to first rate science and technology and make them aware of UBC facilities and resources.

The increasingly popular program is highly praised by science teachers and attracts some of B.C.'s top science students, many of them enrolled in their school's International Baccalaureate or Advanced Placement programs. Several students who took part in the first series two years ago have gone on to win major provincial and university scholarships.

The series, which began in November and will run until March, has expanded this year to include topics and speakers from beyond the Faculty of Science.

"The focus is still on the Science Faculty, but we wanted to show some of the applications of science and other research that is being done elsewhere," said Carter.

Highlights include a tour of TRIUMF and a panel discussion on

### Tourist industry names museum top attraction

The UBC Museum of Anthropology was named Canada's outstanding tourist attraction of 1989 at the recent 12th annual Canadian Travel and Tourism Industry awards.

The award, sponsored by Agent Canada magazine, the national trade magazine for travel agents and the tourism industry, was presented Nov. 23 at a ceremony at Vancouver's Hyatt Regency hotel.

The MOA was nominated for the award by readers of the Vancouver-based magazine.

Women in Science and Technology with Helen Ching, B.C. Research and Society for Canadian Women in Science and Technology, Linda McCargar, Family and Nutritional Sciences, Kristin Orians, Oceanography/Chemistry and Maria Klawe, head of Computer Science. About half the participating students are female.

Another panel discussion, with David Dolphin, Chemistry, Alison Buchan, Physiology, and Dale Beyerstein, Philosophy, examined the role and applications of science in society.

Other topics covered include genetics, psychology, particle physics and North West Native Indian languages. The sessions are held in various departments around campus so students get to know the university.

Lecturers in this year's series include William Ovalle, Anatomy, David Boyd, Mathematics, Michael Gerry, Chemistry, Robert Hancock, Microbiology, Tony Griffiths, Botany, Anthony Perks, Zoology, Patricia Shaw, Linguistics, John Pinel, Psychology, Cathy Rankin, Psychology, Raymond Andersen, Chemistry/Oceanography, Gordon McBean, Geography and Murray Isman, Plant Science. The Science Undergraduate Society has also been invited to take part.



The Phoenix Chamber Choir won the BBC Silver Rose Bowl

## Phoenix choir wins a major award

The Phoenix Chamber Choir was presented with major international awards during a recent UBC concert broadcast live in Europe.

The concert, co-sponsored by the School of Music and the CBC, was in celebration of the choir taking top honors at the Let the Peoples Sing international choral competition last May. The mixed voice ensemble was the winner of the BBC Silver Rose Bowl as best overall choir and won first place in the contemporary music category.

Held at the School of Music Recital Hall, the concert was broadcast via

satellite to the national radio networks of 18 countries through the auspices of the European Broadcasting Union.

The choir is conducted by School of Music Professor Cortland Hultberg and many of its 18 singers are Music Department alumni and former members of Hultberg's UBC Chamber Singers.

The concert, a blend of jazz, classical and popular choral music along with seasonal Christmas favorites, was heard across Canada at a later date on the CBC Stereo program Choral Concert.