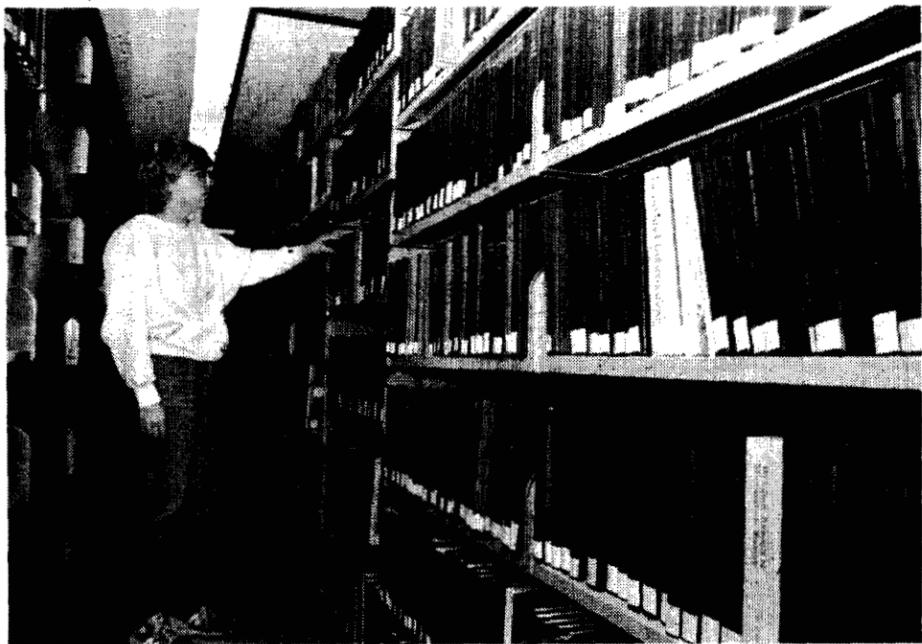




Reports

Volume 33 Number 18, October 8, 1987



UBC Photo Warren Schmidt

Graduate student Margaret Liptay searches the crowded stacks of UBC's Main Library.

Critics tear apart UBC athletic review

by Jo Moss

The findings of a presidential task force on athletics and sport services are shortsighted and ludicrous, according to a substantial number of university critics.

The task force review, made public two weeks ago, was condemned for not making radical changes and failing to provide any direction.

"It reflects a lack of understanding of what goes on," said Robert Morford, Director of the School of Physical Education and Recreation.

He said the review was an opportunity for the University to undertake changes to create "the best possible environment."

"They missed it," Morford said. "They failed to understand the complexity of the situation and the overlap of the two departments (Physical Education and Recreation, and Athletic and Sports Services)."

Other people echoed his concerns that the task force rushed the report through without adequate investigation. They say it failed to determine the most important issue—the direction athletics and sports services should take.

Barbara Schrodt, a 31-year veteran of the Physical Education department, said at the heart of the matter is the nature of sport in Canadian society. She said it's imperative the University issue a mission statement on the role of athletics at UBC.

"It's a philosophical problem, not a management problem," Schrodt said.

Morford agreed: "They never examined the object of what they wanted to control. The task force had a golden opportunity to examine the role of athletics at this university," Morford said.

Morford and others want the UBC Athletic and Sports Services Department to be integrated into the School of Physical Education and Recreation. The two already share facilities, equipment, a building, and some staff.

He said other Canadian universities prevent commercialism in college sports and preserve the educational focus with a combined operation.

The task force disagreed and recommended Athletic and Sports Services, and Physical Education and Recreation should operate as separate departments. It said a streamlined management system and stricter accounting would facilitate that operation.

"Under these recommendations, the Director of the School of Physical Education and Recreation will be involved in the day-to-day operation of athletics through a special advisory committee to this office," said task force chairman and vice-president of Student

and Academic Services K.D. Srivastava.

But many people said those recommendations do not begin to address the deeper issues involved.

Some critics also say the watchful and benevolent eye of the President's office will not keep commercialism out of intercollegiate sports.

Others differ. Charles Slonecker, head of the Men's Athletic Committee, said he agrees with the task force decision "under the present circumstances."

"It's my impression that the University is served better by two people serving two departments," he said. "That may change in the future. It's not a clear cut decision."

See Critic P. 2

Library expansion urgently needed

by Lorle Chortyk

Time is running out for UBC's Library. A report issued last month on library needs said space for books and other collections has already run out in most of the library's 21 branches, and by 1991 only the Law and Asian Studies Libraries will have room for new acquisitions.

"We've reached the point where we're either going to have to stop buying books or put material into storage, where it's inaccessible to students," said Dr. Jonathan Wisenthal, who chaired the committee that prepared the report. "Both these options would be disastrous for the library and the university."

The committee recommends that a new 210,000 sq. ft. building be constructed at the corner of Main Mall and Agricultural Road to house the Science, Mathematics, Special Collections, Map, Fine Arts and Music libraries, as well as the Wilson Recordings Collection. This site was designated for a new library by the Board of Governors in 1985.

Wisenthal said he hoped the \$27 million needed for the building could be raised through the university's major fundraising campaign which begins next year.

Wisenthal said the situation is doubly urgent because of a 1985 agreement between the University and Mr. David Lam, a Vancouver businessman who donated \$1 million towards a management research library. The agreement states that UBC will complete construction of a new building for the library by the end of 1991.

"We're going to have to act fast to meet this commitment," he said.

Graham Argyle of UBC's Facilities Planning Office said construction of the building would take between two and three years, depending on the type of contract involved.

The David Lam Library will be part of a Management Research Centre, a new facility in the Faculty of Commerce and Business Administration that will use approximately 33,000 of the 140,000 net assignable sq. ft. in

the building.

In addition to the management research library, which will be the focal point of the centre, there will be several research bureaus, a management conference centre and a management placement service for researchers, government, labour and the business community.

The commerce faculty is raising the funds for its section of the building.

A contentious issue surrounding the new library is the demolition of the Bus Stop Coffee Shop, a historical building located on the site.

Graduate student Alexis Smith was one of the coffee shop's regular customers who signed a petition last year protesting the move.

"I don't see why the library can't be built somewhere else. The Bus Stop is one of the few places on campus that isn't cold and impersonal—the waitresses know the customers, it's like a neighbourhood gathering place," she said. "I don't think that atmosphere will be recreated, even if a new coffee shop is built."

The committee has recommended a new food service outlet be built at the front of the adjacent Henry Angus Building on Main Mall.

Although the committee's top recommendation is for the 210,000 sq. ft. building, the report also outlines an alternative option for a smaller building on the Main Mall site combined with expansion of the North and South wings of the Main Library off East Mall.

Wisenthal said the problem of library space is not a new one, and that ten years of delay has led to the present crisis.

"We've been looking at this problem for the past decade and an earlier proposal to expand the library was approved by all levels of the university," he said. "The proposal then went to the Universities Council of B.C., where it was never formally accepted or rejected -- they just sat on it and nothing was ever done."

The report is now in the hands of President David Strangway, the President's Advisory Committee on Space Allocation, the Board of Governors, and organizers of the university's fundraising campaign.

"We're heading for a cliff" - Strangway

By Debora Sweeney

UBC President David Strangway said the University is heading for a cliff, and could go over the edge unless a major infusion of capital comes from both government and the private sector.

The capital, \$205 million, is needed to construct what Strangway calls the "unfinished campus." The major building campaign is outlined in a Needs Report the University presented to the provincial government earlier this month.

Strangway is encouraged that the provincial government requested the report, which outlines the problems of a substantial backlog of construction and the need for new research facilities.

According to the report, what UBC needs most is a University Services Centre, with a price tag of \$11.4 million. The building would house the Physical Plant facilities, many of which are located in the temporary World War II huts which the Workers Compensation Board and the fire department have condemned as serious safety hazards. The Centre would also house other administrative services.

The other major priorities are the Library expansion and a \$40 million Forestry Sciences building.

The report outlines several other projects which address the immediate space needs of the University and the need for more labs and expansion to meet rapidly changing technology. They are listed alphabetically,

from Advanced Materials and Process Development Laboratories, to a Studio Resources Building and include:

- Chemical Engineering: An example of the lack of space felt in teaching and research laboratory shortages, chemical engineering involves hazards and crowding makes it virtually impossible to maintain safety standards.
- Concert Hall: Would replace the Old

Auditorium, constructed as a temporary building in the 1920's. It would have a 1,400 seat capacity.

- Studio Resources Building: Would provide studio space for the Fine Arts, Music and Theatre departments. The departments have had to spread widely and inefficiently across campus into temporary and sub-standard buildings.

"We're a modern university trying to compete for facilities, for equipment, for people, for lab facilities, in fields that are changing rapidly," said Strangway, "and we can't do it with buildings that were temporary 40 years ago."

Strangway said while UBC remains a first-rate university, its prestigious status will take a turn for the worse if the building needs are not met soon.

Combined with the \$137 million needed to fund a serious backlog of maintenance projects, the whole-sale upgrading of the University adds up to more than \$342 million.

While Strangway admits coming up with that kind of money appears to be a Utopian dream, he said the situation is a crisis and must be dealt with as soon as possible.

"For a modern university that's going to be competitive, competitive on behalf of the province, these facilities are absolutely necessary," he said.

The University will begin a marketing survey within the next few weeks, to investigate which projects the private sector would support. That information will form the basis of a major fund-raising campaign.



David Strangway, UBC President

UBC Photo Warren Schmidt

Tragedy of polio returns to haunt victims

By Debora Sweeney

Polio, the most devastating epidemic to hit a generation of North Americans, is a ghost returning to haunt its victims.

Vera Wilks was 14 when she contracted the disease in 1953 and the doctors said she would never walk again.

After years of therapy, she proved them wrong. Wilks danced, played tennis and drove a bus for a living.

A year and a half ago, she suddenly had trouble walking.

"My toes would drop when I was walking - I'd worn a brace to stop that 30 years ago," she said. "I stopped jazz dancing and had to cut down on tennis. I took naps after work because I was always tired. Finally, I had to quit work."

Vera found out she has Post Polio Syndrome, which appears to be a progression of the disability that had incapacitated her when she was a teenager. She is one of hundreds of British Columbians between the ages of 30 and 70, all with histories of polio, who have come forward with the symptoms of Post Polio Syndrome: muscle weakness, fatigue, muscle and joint pain, respiratory difficulty and susceptibility to cold.

Faculty from the School of Rehabilitation Medicine at UBC and the G.F. Strong Rehabilitation Centre are working to give people like Vera Wilks a chance to get their lives back on track. They are looking for Post Polio Syndrome sufferers to sign up for a clinical trial, which will get underway in January.

"We're saying to these people, you've got a problem," said Dr. Cecil Hershler, a specialist in physical medicine, "so how can we manage you optimally so you can function and have self esteem, a nice quality of life, feel good



UBC Photo Warren Schmidt

Vera Wilks' leg exercises are monitored by UBC's Rehab. Med. team, clockwise from left, Donna MacIntyre, team leader Dr. Elizabeth Dean, Dr. Cecil Hershler and Jocelyn Ross.

about yourself and be able to handle the activities of daily living?"

Hershler said the big question mark around Post Polio Syndrome is, should therapists work people to their fullest capacity to strengthen their muscles, or should they prescribe less exercise?

The most popular theory about the syndrome is the first bout of polio resulted in

the death of nerve cells. It meant the nerve cells that were left over had to go to work double-time, resulting in more stress on ligaments and joints because muscles were working beyond their capacity.

"You have people who as children, had severe polio," said Hershler. "They're in bed for two years or so. They get out of it, they go back to school, they cope through their youth

and get involved in tremendously active occupations. It's devastating for them when they come in and tell us they can't do what they were doing six months ago."

Hershler is working with Dr. Elizabeth Dean who heads the team, Donna MacIntyre and Jocelyn Ross. Dean's expertise is in aerobic performance, MacIntyre specializes in muscle testing and training, and Ross' expertise is in physiotherapy.

They are hoping to find out whether a general conditioning program will improve the strength that people need to perform the activities of daily living.

"I don't know whether this is a question of curing polio or whether it's a question of managing it," said Dean. "We have done some preliminary work already, looking at the effect of a modified aerobic training program, and we've found some dramatic improvement in the small number of patients we've examined so far."

The clinical trial will take that work further. It will include an aerobics program, a muscle training program, and a combination of those programs. As well, a control group will be established, whose members will eventually move into the training programs. The UBC team wants to recruit 80 people who have Post Polio Syndrome to take part in the clinical trial.

"There are several studies which only have analyzed the effects of Post Polio Syndrome on muscles because patients complain of muscle fatigue and muscle pain," said Dean. "In this study, we're looking at the cardiorespiratory function of the patient as well, so we'll come up with the whole picture."

Vera Wilks is one person who is hoping the findings will be significant.

"It's possible I'll be in a wheelchair forever," she said, "but as long as you see some signs of hope, you keep going."

Critic from P. 1

Head of the task force, K.D. Srivastava, UBC's Vice-president on Student and Academic Services, said the task force had realized there was no ideal solution to the situation.

"With the problems of divided jurisdiction on the administration of facilities, for example, which involve both departments as well as other boards of management, the task force felt some central action had to be taken. And the University has to work closely with the AMS in this area because of existing, formal contractual agreements."



UBC Photo Warren Schmidt

Dr. K.D. Srivastava

"The task force couldn't solve all the problems of athletics and terms of reference were quite restricted for that reason," he said. He said he has received support from many university faculty on the task force report. According to Srivastava, there will be further detailed analysis of the sports programs and their funding.

He added that UBC President David Strangway is currently working on a mission statement for the University. "I think it would include the role of athletics at UBC," he said.

Schrodt said the situation is terribly complex. "The whole problem is an emotionally-laden one. Some of us know the whole story and have very strong views. No one can possibly be bias-free," she said.

The uproar created by the review report led to two special meetings of the Women's Athletic Committee. Committee chairman and Education professor Thelma Cook said WAC

members and others are concerned that student input into athletic and sport services will be lost under the task force recommendations.

The task force report advocated a strengthened University Athletic Council integrate the roles of the WAC and MAC. Srivastava said there was "no question of abolition".

"The committees cannot be defunct until the Board of Governors abolishes them. They may continue to exist as sub-committees," he said. "It's up to the UAC how they want to seek input from student committees into the athletic programs."

In both the MAC and WAC, student representatives hold the controlling vote. Although the task force allows Alma Mater Society student representatives on the new UAC, many people say the AMS is too far removed from the student athlete situation. "With the UAC as the sole policy-setting body, students input has diminished. It should be preserved and enhanced," Cook said.

Worried students held an open forum last Friday in the War Memorial Gym. The meeting focused on the new role of the UAC and future student participation.

Srivastava said several students have already approached him with their concerns since the report appeared. "My door is open to students and I'm interested in knowing what the student body feels about the report's recommendations," he said. "If the students want to change their representation on the UAC, they can. They can create committee structures that provide the strong input from students."

Director of Sports Services Bob Hindmarch said the lack of facilities was his biggest problem, and the task force didn't address it.

"We have tremendous participatory programs, and the worst facilities in the country," Hindmarch said, adding that the need to raise funds for new facilities must be a high priority for the University.

Women's Athletic Director Joanne Jones agreed.

"The lack of facilities for a campus this size is ridiculous. It's a crucial issue," she said.

While recognizing that the task force did not go far enough in its report, some people said that the review at least brought some issues out into the open.

"People have had a chance to say what they think, everything is up front and in the public domain," said Hindmarch. "It's cleared the air. That's a good thing."

Recommendation from the task force report must win approval from UBC's Board of Governors before they can be implemented. Srivastava said the recommendations will go "piecemeal" as more information is received from students.

People

Ufford heads campaign

One of Canada's top fundraisers has joined UBC to assist in its upcoming fundraising campaign.

Peter Ufford has extensive experience in organizational development work with non-profit organizations. His clients have included the United Way of Canada, the Red Cross and the Canadian National Institute for the Blind as well as other top philanthropic associations.

A native of London, Ontario, Ufford, 39, will play a key role in the campaign as consultant to the President on external affairs. He will also assist with coordination of the areas of Development, Community Relations, Alumni Affairs, Ceremonies and Government Relations. UBC President David Strangway said he was very pleased to announce Ufford's appointment.

Prof. Edward Jull of UBC's electrical engineering department was elected vice-president of the International Union of Radio Science (URSI) when it met recently in Tel Aviv, Israel. URSI was founded in 1919 to promote international collaboration in the field of radio science.

Dr. Sydney M. Friedman, professor emeritus of Anatomy, has been awarded the 1987 Distinguished Achievement Award by the Canadian Hypertension Society. The award recognizes outstanding work in the field of hypertension over many years by a senior investigator.

Metallurgist wins award

Using innovative methods to solve industrial problems has won metallurgist Keith Brimacombe the \$75,000 Manning Principal Award.

A pioneer in his field, Brimacombe has successfully applied mathematical models and computer analysis to complex industrial processes used by Canadian metals producers. By working closely with real problems in industry, he has demonstrated that mathematical models can control and optimize smelting processes to produce superior quality products.

In doing so, Brimacombe has probably contributed more than any other Canadian professor to solving basic problems in the metallurgy industry.

One early application of his research improved the process of continuous casting of steel. He has since worked on areas ranging from rotary kilns to copper converting, slag reduction, coke production and gas injection. Much of his research is done on-site.

A staunch advocate of the benefits of university and industry cooperation, Brimacombe has undertaken joint research with over 30 North American companies including Alcan and Cominco.

The Manning Principal Award recognizes outstanding talent in creating and developing new procedures or products which benefit Canadian society.

Prof. George Gau, chairman of the Urban Land Economics Division in the Faculty of Commerce, has been selected as a Fellow of the Homer Hoyt Institute. The institute supports development and advancement in the field of real estate and land economics. Gau is the second Canadian ever to be named a Fellow in the institute's history.

When the UN General Assembly meets in New York later this month, Peter Oberlander, Director of the Centre for Human Settlements will be there as advisor to the Canadian delegation.

The Assembly will consider resolutions dealing with the International Year of Shelter for the Homeless and the future agenda of the UN Commission on Human Settlements.

Canada's presentation was made earlier this week.





Dr. Wilbert Danner combs Wreck Beach for the coins, cans and bottles nude sunbathers leave behind.

UBC Photo Warren Schmidt

Wreck Beach exposes more than just skin

by Debora Sweeney

UBC geologist Wilbert Danner spends a lot of time in the summer at Wreck Beach.

He doesn't take a stitch of clothing off and pays little attention to the nude sunworshippers sprawled in the sand. He makes his way carefully around them, his hands clutching a green garbage bag, his eyes darting up and down the beach.

Danner is searching for money -- coins dropped in the sand as sunbathers 'take-it-all-off,' and for the beer cans and bottles they leave behind.

He is probably the best-educated beachcomber in the province, applying his expertise in the principles of sedimentology to finding the coins which are often half-buried in the sand.

So far, Danner has collected more than \$1,100 in coins, in spite of the fact he does not compete with the "old guys with the metal detectors" who prowls the beaches in the early hours of the morning. He goes to Wreck Beach because it is a nude beach.

"With all those people taking all their clothes off, more coins drop out," he said.

Danner knows the action of ocean waves tends to wash finer materials away from the shoreline, leaving heavier pebbles behind. Among those pebbles, he finds coins. He said the best time to comb the beach is after a storm.

"The sand blows around and the coins lag behind," Danner said. "With the sun coming up, you watch in the direction of the sun and the coins flash up at you. I got \$5.25 here on Saturday morning."

When it gets too cold for people to doff their clothes at the beach, Danner moves to the UBC parking lots.

"In parking lots, people who are pulling their keys out of their pockets, often drop coins," he said. "The coins fall onto the pavement and the analogy there is that it's a vertical dropping of material. In geology, we have that where rocks melt down in ice bergs."

Danner said people often don't bother to bend down and look for their coins when it's dark, wet, or snowing.

"It's a real bonanza when we've had a couple of weeks of snow and it melts," he said. "You can find a lot of money there."

Danner also focuses his search for coins around parking metres.

"People drop coins as they're feeding the parking metres," he said. "If the metres are surrounded by bushes, that's rapid sedimentation because the coins are quickly buried out of sight."

Danner doesn't find only coins. Sometimes, he finds dollar bills. He said the wind picks up misplaced dollar bills and deposits them around the edges of parking lots.

"It's like a sand dune in a desert," he said.

Danner also collects bottles and cans from campus parking lots. So far, he has raised \$5,000.

"You run over a bottle in a parking lot and you think what a waste and it's ruining my tires," Danner said, "so I decided to go and pick them up."

Danner admits his preoccupation might sound odd to some people. In fact, when he told the Geological Society of America that he wanted to present a paper on his findings at its annual meeting last year, he thought he would be turned down.

"I wrote up the abstract and thought they probably wouldn't consider it because they'd think it was too stupid," said Danner. "But sure enough, they sent me a reply saying the abstract was scheduled for the meeting."

Danner's talk was scheduled for the afternoon of the last day of the conference, so he thought nobody would attend. He was in for a surprise -- the room was packed.

"They said it was the most interesting paper we had at the whole meeting," said Danner, "a couple of weeks later, I got a copy of a science review from Washington, D.C. and they had reviewed it."

Danner has raised a total of more than \$6,000 from his bottle, can and coin collections. But, he isn't interested in keeping the money for himself.

This month, he established a bursary fund for his geology students -- the students receive the interest from the total sum. David Rhys, a third-year student and Martin Andrews, a fourth-year student are sharing the bursary this year. Danner said both students have been doing exceptional field work.

AMS plaque set

The Alma Mater Society will host a ceremony which recognizes the major contribution students have made to the growth of UBC.

The AMS plans to place a bronze plaque on the Cairn in front of Brock Hall, which will list the capital building projects students have initiated and funded since 1963. They include the Winter Sports Centre, the Student Union Building and the Aquatic Centre.

The Cairn ceremony will take place on Wednesday, Oct. 21 at 5:30.

Volunteers get personal satisfaction

by Jo Moss

Personal satisfaction keeps people like UBC Nursing professor Alison Rice volunteering at a United Way funded agency.

"When you think about being a volunteer, on the surface it sounds like it would be a one-way effort--your time, energy and expertise going to the organization," Rice said. "In fact it's not one-way at all. You get a lot out of it personally."

Rice should know. She has volunteered at the Vancouver clinic of the Planned Parenthood Association of B.C. for 11 years.

Planned Parenthood is an international organization with branches across Canada. The Vancouver clinic is one of 16 in the province.

Located at Vancouver General Hospital, it has one paid staff person--the clinic co-ordinator. Rice is one of 45 active volunteers. Without them, the clinic couldn't operate.

With the motto of 'every child a wanted child', the clinic provides education sessions on birth control, clinical services for contraceptives, and offers pregnancy counselling.

"Our goals are to provide unbiased information about family planning and sexuality so that people can make an informed decision," Rice explained. "Sometimes it's hard for us to go along with the decision. But we do."

Last year Planned Parenthood sponsored workshops and conferences that reached 20,000 parents, students, doctors, nurses, teachers, counsellors, clergy, and others throughout the province.

Rice said people like herself volunteer to make sure these kinds of services are available.

"From one perspective the whole issue is a political one," she said. "The services we offer should be part of our health care system. But they're not."

Rice said part of the problem lies in whose responsibility it is to provide this kind of education.

"Governments think that stuff belongs in the family. But most Canadians think it belongs in the schools. It's pretty obvious lots of people don't have the information."

Rice said her commitment to the organization "goes in waves. Some evenings the last thing you want to do is drag yourself off to the clinic. But when you get there it's always enjoyable."

Her feedback from clients is often immediate and direct.

"It happens a lot that women come back and say thank you and that they feel great. I think because they make a point of saying it, it's a different encounter for them than they have had elsewhere in the health care system. That makes me feel good."

Not all the volunteers at Planned Parenthood are professionals, and a medical background is not a criteria to qualify.

"That's one of the things I like about it," Rice explained. "There is a mix of people,

there isn't the traditional hierarchical relationships. It's very egalitarian. People value each other and everyone's input is encouraged."



Alison Rice

UBC Photo Warren Schmidt

Study shows friends do more than family

by Lorle Chortyk

Single working women have a better chance of surviving breast cancer than married women.

And it's the support of friends, not family, that increases their survival rate.

These are the findings of a study conducted by Dr. Nancy Waxler-Morrison, a professor of sociology and social work at UBC, and Dr. Greg Hislop of the B.C. Cancer Control Agency. The team followed the lives of 180 women diagnosed with breast cancer over a period of four years to study why some women survived the disease and others didn't.

They found that emotional and psychological factors had a large effect on the physical health of the patients.

"Once we controlled for the medical factor -- how serious the diagnosis was -- we found that women who lived the longest had four things in common," said Waxler-Morrison. "They were unmarried, working, had a lot of friends and they considered their friends very supportive."

Waxler-Morrison suspects that family members are less helpful because they're often so terrified of losing their loved one they can't offer the kind of support needed.

"They're dealing with their own reaction to the situation, and often the woman has to be the strong one in the family to help her husband and children cope," she said.

Waxler-Morrison said working probably helps women because it increases the network of people who can help them deal with the illness.

"The most supportive people were those who would talk about the situation in a sympathetic but non-dramatic way, offer suggestions and provide information on what to expect."

"Part of the anxiety of breast cancer is a fear of the unknown," said Waxler-Morrison. "In a typical office situation, when the word spreads about a woman's illness someone will approach her at the xerox machine and say 'I went through this two years ago, do you have any questions?' or someone will know someone else who had the disease and a network of people who can provide information and advice grows."

According to Brown Mears, a UBC anthropology doctoral student who interviewed some of the women involved in the study, the most helpful support came from women who had been through the same situation.

"Some of their most memorable and helpful conversations took place with a complete stranger in the waiting room of the Cancer Control Agency," she said.

Waxler-Morrison urges women who have been diagnosed with breast cancer to share their problem with friends. And she said friends and family can offer the best support by acknowledging the illness in a concerned but positive way and providing practical information to ease the patient's fears.

Waxler-Morrison and Hislop are about to begin another large-scale study which looks at both men and women with cancer. One of the things they hope to discover is whether psychological factors that affect survival for women are also important for men.

CUPE issues challenge

The Canadian Union of Public Employees, Local 116 has challenged other campus groups to match or beat its \$1,000 donation to UBC's United Way campaign.

The money is earmarked for the Children's Hospital, but Local president Ken Andrews said the challenge is to motivate people to donate to any organization funded by the United Way.

Andrews has offered to sponsor lunch for two people as one of the prizes in the UBC campaign draws.

The Early Bird Draw will be held October 19 at 12:30 next to the United Way thermometer on Main Mall. In the event of bad weather, the draw will move to Sedgewick Library foyer. All donor pledges received by the office of Financial Services by October 15 will be eligible for prizes.

The final draw is scheduled for November 4.

UBC's campaign committee has received more than 50 letters of appreciation from organizations such as The Arthritis Society and the Vancouver Food Bank acknowledging UBC's donations in last year's fundraising drive.



Report of the Vice President, Administration and Finance

The audited financial statements are a public document. Copies of the University's audited financial statements have been provided to each University Department and the University Library. For those interested in more information than provided in these highlights, please refer to the copy in your department.

Table 1 describes the activities in each of five of the six separate funds involved in the financial life of UBC during the 1986-87 fiscal year. Excluded is the Student Loan and Endowment Principal Fund. The concept of fund accounting organizes transactions so that revenues and their related expenses are accounted for in separate funds in accordance with objectives specified by donors, limitations and restrictions imposed by sources outside the University, and determinations made by the Board of Governors.

GENERAL PURPOSE OPERATING FUND

The revenue and expenses used in the general operations of the University are in this fund. The University ended the 1986-87 fiscal year with a deficit of \$5 million after provision for an inter-fund transfer of \$1 million from the Specific Purposes Fund and appropriations for the year of \$1.0 million. The deficit is not a structural deficit and is a first charge against income in 1987-88. There was an increase in operating income over 1985-86 of \$7.0 million resulting primarily from an increase in Provincial grants of \$6.3 million. Total expenses at \$222.5 million were up \$6.2 million with \$3.4 million of the increase attributable to salaries and benefits. The cost of utilities decreased significantly (\$1.1 million) due to efficiencies realized from a new energy management programme, a milder winter, and a rate decrease applicable to natural gas.

SPECIFIC PURPOSES FUND

The revenues and expenses used for projects stipulated by donors, and income earned on the Endowment Principal Fund are included in this fund. Trust fund revenue was \$19.7 million and Endowment Fund revenue was \$16.9 million for a total of \$36.6 million. With expenses of \$21.7 million and a \$2.5 million interfund transfer, the year-end balance was \$27.9 million, \$12.3 million higher than last year. At the commencement of 1986-87 the investment management of the endowment fund was transferred to professional money managers. The 1986-87 endowment fund revenue of \$16.9 million represents an increase of \$7.3 million over 1985-86.

SPONSORED RESEARCH FUND

Included are funds specifically identified for research grants and contracts or related activities as provided by government granting agencies, research institutes and

other public and private agencies. Revenue increased from \$59.6 million in 1985-86 to \$65.3 million this year. The \$5.7 million increase is accounted for by increases in Natural Science and Engineering Research Council grants of \$6.2 million, Medical Research Council grant increases of \$2.5 million and other less significant variations.

ANCILLARY ENTERPRISES FUND

Ancillary enterprises provide goods and services to the University community and are expected to operate on a break-even basis. Included are the Bookstore, Food Services, Student Housing and Conferences, Oyster River Farm, Parking, Health Sciences Parkade, Tennis Centre, Athletic and Sport Services, UBC Press and Satellite Communications. This year the fund has been increased by the addition of Media Services and the Education Measurement Research Group. Revenue increased by \$11.3 million (31.0%) to \$47.8 million. Expenses increased to \$43.8 million. Of the \$11.3 million increase in revenue \$5.4 million is attributable to Student Housing and Conferences. This significant increase which created a \$4.0 million surplus was due primarily to short-term accommodation revenue generated during the summer months as a spinoff from Expo 86 and revenue from a one year lease arrangement between the University and the Expo 86 corporation. The majority of the surplus will contribute to the Acadia Phase III Family Housing project scheduled for completion in September, 1988.

CAPITAL FUND

The capital fund consists of gifts, grants, interest and authorized capital borrowing received for the purpose of acquiring capital assets including those pertaining to ancillary enterprises. \$15.9 million of the revenue and expenses are offsetting amounts which relate to servicing the debt on long-term debenture funding for completed buildings and other past capital projects financed by the Provincial government. The loan funds of \$8.7 million were provided primarily for Housing (Acadia Park Phase II) and Parking (B Lot) capital projects. The loans will be repaid from future operating revenues of these agencies over the next 15 to 20 years.

COMBINED FUNDS

The total revenue and expenses of all five funds are shown by object of revenue and expenses. The total revenue for all funds was \$405.0 million, up \$33.0 million. Total salaries and benefits were \$247.2 million. All expense objects increased over 1985-86 except furniture and equipment which decreased \$3.2 million, utilities \$0.3 million, renovations and alterations \$4.0 million, scholarships, fellowships and bursaries \$0.2 million, and building contracts \$8.1 million.

Table 2 shows the source and distribution of general purpose operating funds over the past five years. After a 4-year decline from 84.8% in 1982-83 to 79.7% in 1985-86 in the proportion of revenue from Province of B.C. grants, there is a modest increase to 80.0% in 1986-87. The increase in the proportion of expenses attributable to Administration reflects the University's commitment to major new computer systems such as Financial Records, Student Information and Alumni/Development.

Table 3 shows a comparison of the Total General Purpose Operating Expenses by object of expense for the five years 1982-83 to 1986-87.

Table 4 shows the change in total Sponsored Research Funds since 1982-83.

Table 5 shows the source and distribution of Sponsored Research Funds.

GENERAL

A new general ledger and accounts payable (Financial Records) system was installed in 1986-87 which provides users with on-line enquiry, commitment accounting, departmental cost centres, roll-up reports, and financial reporting on grant periods. A Student Information system is in the process of development and will allow students to register using touch-tone telephone and voice response technology commencing in early 1988 with the spring and summer sessions. A new Alumni/Development system implemented August 1, 1987 provides for a centralized donor database and the incorporation of a pledge system. The planning for a Human Resources System which includes Budgets, Personnel and Payroll will commence in January, 1988.

Future capital projects include the development of 77 units for family housing (Acadia Park Phase III - \$7.0 million) scheduled for completion in September, 1988, a Parkade (\$6.3 million) scheduled for completion in August, 1988 accommodating 1,125 vehicles and 125 surface parking spaces to replace the existing Student Union Building lot facility which has 492 spaces and the purchase of a new telephone system (\$4.8 million) to be financed out of the current level of general purpose operating funds allocated for telephone equipment rental and maintenance. Recently the Minister of Advanced Education and Job Training announced funding for a \$16.4 million Chemistry/Physics building. During the year Acadia Park Phase II was completed.

A.B. Gellatly
Vice-President, Administration and Finance

TABLE 1 THE UNIVERSITY OF BRITISH COLUMBIA STATEMENT OF CHANGES IN UNAPPROPRIATED FUND BALANCES FOR THE YEAR ENDED MARCH 31, 1987 (thousands of dollars)

	General Purpose	Specific Purposes	Sponsored Research	Ancillary Enterprises	Capital	Totals 1987	1986
Revenue and other additions:							
Government grants and contracts							
Government of Canada	\$ -	\$ 3,173	\$ 44,990	\$ -	\$ -	\$ 48,163	\$ 39,394
Province of British Columbia	177,229	9,867	5,187	-	23,168	215,451	204,667
Other governments	-	45	137	-	-	182	150
Foreign governments	-	1,234	1,504	-	-	2,738	1,777
Student fees	40,640	152	-	909	-	41,701	39,995
Bequests, donations and non government grants	-	5,155	13,399	-	1,218	19,772	22,647
Sales and services	572	-	63	46,563	-	47,198	37,436
Income from investments	3,054	16,945	-	318	596	20,913	13,671
Loans	-	-	-	239	8,708	8,947	12,267
	<u>221,495</u>	<u>36,571</u>	<u>65,280</u>	<u>48,029</u>	<u>33,690</u>	<u>405,065</u>	<u>372,004</u>
Expenses and other deductions:							
Salaries - Academic	95,301	4,149	11,515	-	-	110,965	108,662
Student service	5,667	3,070	7,970	-	-	16,707	15,691
Staff	63,509	4,154	15,045	12,956	80	95,744	90,305
	<u>164,477</u>	<u>11,373</u>	<u>34,530</u>	<u>12,956</u>	<u>80</u>	<u>223,416</u>	<u>214,658</u>
Benefits	20,012	626	2,122	1,070	3	23,833	23,244
Travel, field trips, moving	3,135	1,560	3,966	-	5	8,666	7,220
Library acquisitions	5,274	317	388	-	-	5,979	5,590
Operational supplies and expenses	16,121	1,007	12,838	5,469	3,471	38,906	30,150
Furniture and equipment	3,462	1,652	6,328	700	1,830	13,972	17,210
Utilities	8,239	180	542	1,356	46	10,363	10,659
Renovations and alterations	566	254	119	1,416	2,226	4,581	8,572
Scholarships, fellowships and bursaries	3,537	3,343	542	-	-	7,422	7,660
Professional fees	2,212	1,271	727	-	1,498	5,708	4,673
Cost of goods sold	-	-	-	15,473	-	15,473	13,608
Debt servicing	-	-	-	5,312	15,912	21,224	19,589
Building contracts	-	-	-	-	8,245	8,245	16,318
Internal cost recoveries	(1,054)	160	894	-	-	(3,464)	(3,634)
External cost recoveries	(3,464)	-	-	-	-	-	-
	<u>222,517</u>	<u>21,743</u>	<u>62,996</u>	<u>43,752</u>	<u>33,316</u>	<u>384,324</u>	<u>375,517</u>
Transfers and appropriations:							
Expended from prior years' appropriations	1,319	-	-	570	4,000	5,889	6,490
Interfund transfers	133	(2,564)	(1,520)	(1,599)	1,722	(3,828)	(1,662)
Appropriations for the year	(1,035)	-	-	(3,898)	(2,949)	(10,882)	(5,889)
	<u>417</u>	<u>(2,564)</u>	<u>(1,520)</u>	<u>(4,927)</u>	<u>(227)</u>	<u>(8,821)</u>	<u>(1,061)</u>
Net increase (decrease) during the year	(605)	12,264	764	(650)	147	11,920	(4,574)
Unappropriated Fund balance, beginning of year	58	15,657	14,616	911	2,419	33,661	38,235
Unappropriated Fund balance, end of year	<u>\$ 547</u>	<u>\$ 27,921</u>	<u>\$ 15,380</u>	<u>\$ 261</u>	<u>\$ 2,566</u>	<u>\$ 45,581</u>	<u>\$ 33,661</u>

TABLE 2 SOURCE AND DISTRIBUTION OF THE GENERAL PURPOSE OPERATING FUND FOR THE YEARS ENDED MARCH 31, 1983 TO 1987

	1987 %	1986 %	1985 %	1984 %	1983 %
Source					
Province of B.C. - Grants	80.0	79.7	81.2	83.9	84.8
Student Fees - Credit	15.4	15.3	14.1	11.5	10.6
Student Fees - Non-credit	3.0	3.2	2.9	2.8	2.1
Other	1.6	1.8	1.8	1.8	2.5
	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>
Distribution by Function					
Academic and Associated Academic Services	72.1	73.2	72.9	73.4	73.3
Library	7.5	7.3	7.5	7.6	7.4
Student Awards and Services	2.6	2.6	3.0	2.5	3.1
Administration	5.3	4.3	4.2	4.2	4.1
General	1.2	.7	.7	.6	.5
Plant	11.8	12.3	12.2	12.0	11.9
Overhead Recovered on Research	(0.5)	(0.4)	(0.5)	(0.3)	(0.3)
	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>

TABLE 3 SUMMARY COMPARISONS OF TOTAL GENERAL PURPOSE OPERATING EXPENSES 1982-83 TO 1986-87

	Academic %	Student Service %	Staff %	Total %	Benefits %	Sub Total %	Travel & Field Trips %	Library Acquisitions %	Operational Supplies & Expenses %	Utilities %	Furniture Equipment & Alterations %	Total %
1986-87	42.8	2.5	28.5	73.8	9.0	82.8	1.4	2.4	8.1	3.7	1.6	100.0
1985-86	43.7	2.5	28.4	74.6	9.1	83.7	1.1	2.3	5.2	4.3	3.4	100.0
1984-85	44.0	2.3	29.1	75.4	9.1	84.5	1.1	1.9	5.7	4.1	2.7	100.0
1983-84	45.1	2.4	29.2	76.7	9.0	85.7	1.1	1.9	6.2	3.3	1.8	100.0
1982-83	44.4	2.3	28.2	74.9	8.3	83.2	1.2	2.0	7.9	2.9	2.8	100.0

TABLE 4 TOTAL SPONSORED RESEARCH FUNDING (thousands of dollars)

Year	Amount
1982-83	\$ 48,010
1983-84	54,906
1984-85	63,096
1985-86	59,619
1986-87	65,280

TABLE 5 SOURCE AND DISTRIBUTION OF SPONSORED RESEARCH FUND FOR THE YEARS ENDED MARCH 31, 1983 TO 1987

	1987 %	1986 %	1985 %	1984 %	1983 %
Source					
Government of Canada	68.9	62.6	69.6	67.9	67.5
Province of British Columbia	7.9	9.2	7.7	10.0	10.0
Other governments and agencies	2.5	2.8	2.2	2.3	2.2
Total governments	79.3	74.6	79.5	80.2	79.7
Individuals, business, foundations	20.5	24.9	20.1	19.4	19.6
Other	.2	.5	.4	.4	.7
	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>
Distribution					
Salaries and benefits	58.2	56.7	56.6	58.0	58.2
Travel and field trips	6.3	6.1	5.9	6.2	6.2
Operational supplies and expenses	20.4	18.1	17.7	18.2	17.6
Equipment	10.1	13.1	13.7	13.0	12.7
Other	5.0	6.0	6.1	4.6	5.2
	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>

New training scheme helps safety record

UBC has improved its track record in safety.

The number of employees involved in industrial accidents has dropped this year, from 229 to 179 in the January-July period. The drop may be a result of new training programs initiated by UBC's Occupational Health and Safety Office.

Two courses on chemical safety offered this year proved so popular that requests came in from off-campus and affiliated organizations to participate. The courses were coordinated by UBC's chemical safety officer, Lyn Peters.

"We covered how to transport and store chemicals, chemical waste disposal, how to clean up a chemical spill and how to extinguish flammable liquid fires," said Peters. "After the one-day lecture session we divided people into small groups for hands-on emergency training."

Training was provided by representatives from the health and safety office, chemistry, chemical engineering, electrical engineering, pharmaceutical sciences and the UEL Fire Department. 124 people from 38 departments participated in the program.

"The frightening thing about industrial accidents, particularly with hazardous material, is that the only difference between a small accident and a fatality is pure luck," said Peters. "All the elements for disaster are there."

One of the dangers in a university setting is the diversity of materials technicians and other lab workers come in contact with.

"Lab technicians handle everything from hazardous chemicals to biological wastes to radioactive by-products," said Peters. "If an accident occurs, people tend to panic and a lot of times they do things that make the situation worse."

Peters said workers are often reluctant to report laboratory accidents because they're afraid of repercussions.

"They don't realize that nobody wants to point a finger at them. We want to know what's happening out there in the labs so we can prevent others from making the same mistakes."

Last year close to 400 employees were involved in accidents, resulting in 4,480 lost working days and \$276,957 in wage compensation.

Seeing how others play key to racial harmony

by Jo Moss

Learning East Indian dances or trying out an Inuit blanket toss game at school can teach children a lot about racial harmony, said UBC Physical Education professor Moira Luke.

According to Luke, incorporating games of different countries into elementary school physical education classes can help children understand and appreciate cultural differences. And that goes a long way towards meeting the needs of Canada's multicultural society, Luke said.

While some elementary teachers are already adapting subjects like history and art to reflect different cultural contributions to our society, Luke said physical education has been neglected.

Even the federal Multiculturalism Directorate, which endorses a multicultural focus in other classroom curriculum, until recently left physical education off its list. Luke said that was a big mistake.

"Physical education is ideally suited to introduce the concepts of multiculturalism because it is a non-language activity," she explained. That can be an important factor in cities like Vancouver where more than eighty different languages are represented in the schools.

Until this year, Luke was involved in the Multicultural Teacher Education Program in the Faculty of Education, where she encouraged future elementary school teachers to adapt the very traditional content of classroom materials.

"If you want to teach a throwing game, for example, it doesn't have to be basketball. It can be a game that has its roots in another culture," Luke said.

"Children also learn important social skills in physical education such as cooperation and sharing. It helps them develop positive attitudes towards activity and an active lifestyle."

According to Luke, UBC was one of the first places to develop a multicultural program in the Faculty of Education.

Wood collection largest in Canada

The unusual hardwood floor in a Gastown building scheduled for demolition caught a Vancouver architect's attention.

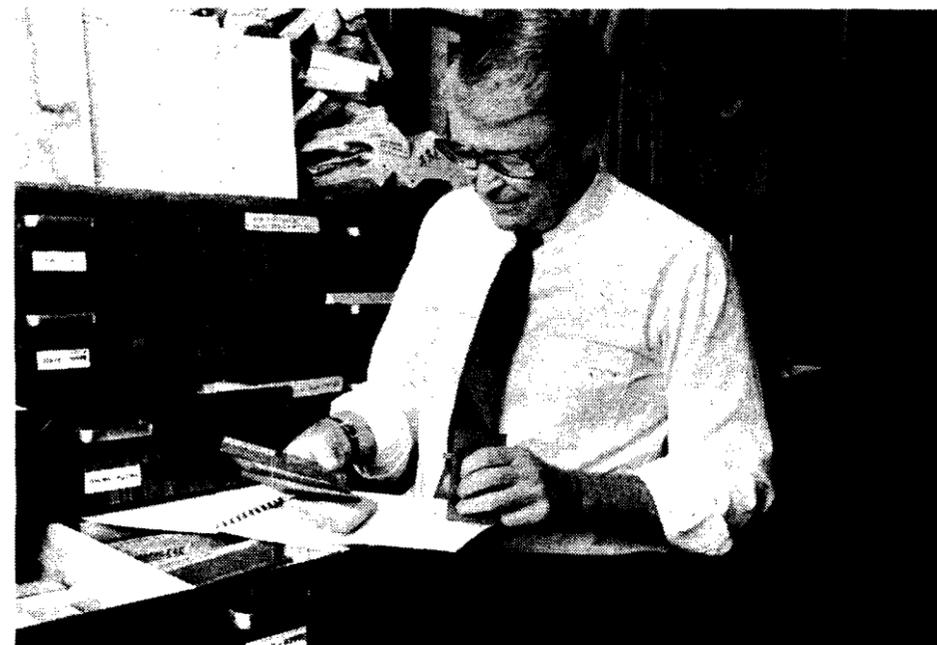
And UBC's forestry faculty helped her identify it.

"The floor was made of Australian eucalyptus which is quite valuable now," said Robert Kennedy, Dean of Forestry and curator of the largest catalogued collection of wood

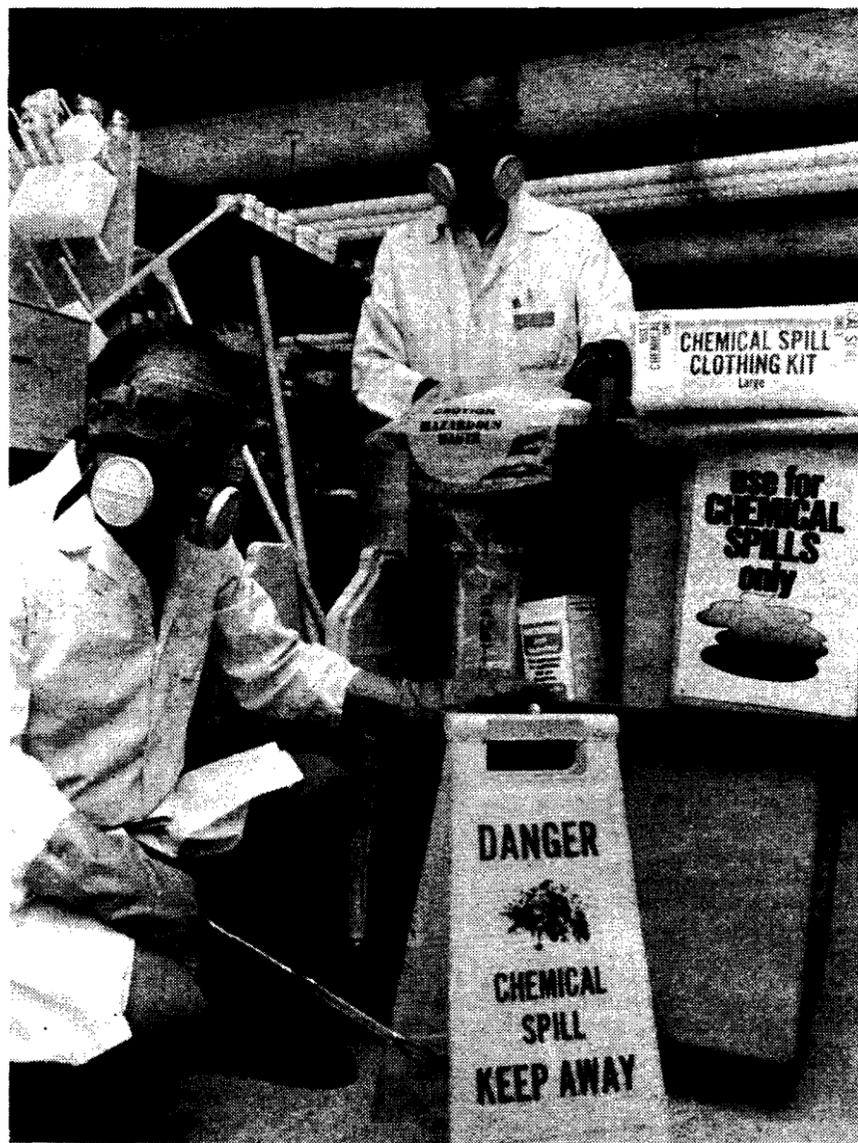
samples in Canada.

"That kind of wood was imported in the 1890's because it was very hard and resistant to abrasion."

Totalling more than 10,500 specimens, and representing every major timber producing country in the world, the wood collection was established in collaboration with Forintek Canada Corporation, a private forest industry



Dr. Robert Kennedy



Prepared for the worst ... Chemistry stores manager George Gunn, left, and John Ellis display emergency clean up equipment.

Does Johnny appreciate the drive to the rink?

Parents who have endured 6 a.m. drives to the skating rink and tantrums over piano lessons may soon find out if it was all worthwhile.

Drs. Richard Young and John Friesen of the Faculty of Education's counselling psychology department have entered the second phase of a study which looks at how

successful parents are influencing their children's development and career decisions.

"Most parents are very concerned about preparing their children for the future, and we know that families do have an overwhelming influence in the area of career development," said Young. "We're attempting to find out exactly what it is that motivates and encourages children so that parents will have a better idea of how to help them."

Young and Friesen interviewed 207 parents in phase one of the study to identify incidents that parents felt had been important in preparing their child to make a career choice. The 1,700 incidents documented ranged from driving their children to extra-curricular activities to saving money for their child's education.

Incidents were divided into categories and subcategories for analysis. These included structuring the environment, interaction with the child and instrumental support.

"Structuring the environment would be activities such as encouraging a child to join clubs or take lessons, providing a quiet study space or transferring the child to a school that the parents felt was superior," said Young.

"In the interaction category we listed incidents that involved giving advice or feedback and providing emotional support for the child.

"Under instrumental support we focused on materials and supplies provided by parents to help the child."

Young said most parents seem quite happy to let their children make their own career choices.

"We haven't found any evidence to support the idea that parents are pushing their children to become, say, doctors or lawyers."

The researchers moved into phase two of the study this summer.

"We've taken 80 of the most common incidents described in the first part of our study and asked 150 parents and 150 young people aged 18 to 25 to rank them in order of importance and likelihood of occurrence.

"This should tell us whether or not incidents that parents perceived as meaningful really did have an influence on children," said Young. He hopes the study will provide new and helpful information for parents.

research organization.

About two-thirds of the collection is at UBC. The rest is located in Forintek's two laboratories, on campus and in Ottawa.

For forestry consultants, importers, scientists, craftsmen, architects and others the wood collection can be an invaluable resource.

"An importer may have heard about a certain sort of wood in another country, but only know it by its common name," Kennedy explains. "Not only can we identify it for him, we can show him a specimen."

"We welcome people bringing in queries, we wish we had more," Kennedy said. "It is a working collection, but not enough people use it. It's not well-known."

The collection is extensive in scope. There's commercial wood, non-commercial wood, hardwood, softwood, heavy wood, light wood, rare wood, curiosity pieces and exotic specimens. Pernambuco, a Brazilian species, is used for violin bows that sell for up to \$1,000.

A computer-compiled index lists each specimen by family, genus, species, color, density and the geographic area of growth. It also gives up to six common names.

The earliest wood samples in the collection date from the 1930's. Each year gifts from foreign laboratories and institutions, and from faculty returning from overseas assignments swell the number.

Kennedy says more are needed. "Because of the nature of wood, we need as many pieces as we can get to determine variance in the species," he said. Anyone with wood specimens to donate will receive a labelled collection of commercial Canadian wood species in return.

Computer helps bedside manner

by Jo Moss

Future doctors might turn to a bedside computer to figure out how much fluid a patient needs.

UBC chemical engineering professor Joel Bert is developing computer software that could handle such a job, and his work could ultimately save the lives of burn patients.

Bert produces mathematical models of physiological systems—computer programs that can be used to simulate how body systems work. He and colleague Bruce Bowen are investigating how fluids move from one part of the body to another, research that may eventually help to save the lives of burn patients.

"We're trying to define, mathematically, how fluids in the body behave, how they move from the bloodstream to the tissue and back," Bert explained.

"It's the opposite of the traditional, scientific reductionist approach which looks at a small part of the body in detail. I'm interested in the generalist approach, how the larger system operates and how all those small pieces of information fit together."

Controlling body fluids is a critical issue in treating burn patients. "When the skin is burned, body fluids leak out and the skin takes on quite different properties," Bert said. "We're looking at what happens in resuscitation. How the body behaves when fluids are given to a burn patient to replace those that are lost."

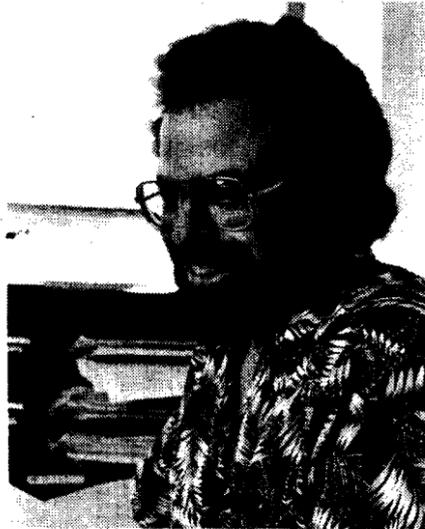
According to Bert, current clinical treatment of burn patients is based largely on medical experience, with little theoretical foundation. Bert's simulation model will help to change that by explaining how fluids transfer in the body. When completed, it may assist health

professionals in knowing when to give patients fluids and what kinds of fluids they should be.

"We've put into the model all the accurate information that we can find about the situation of fluid transfer, how the blood pressure changes, what happens to proteins in the blood, and so on," Bert said. "It's a simple approach to the problem, but it's the most complicated one we can do right now."

By simulating this biological sequence of events, Bert can make a prediction as to how the body will behave. That prediction can be validated by clinical tests.

Four years ago, Bert began to collaborate with Dr. Rolf Reed and clinical researchers at the University of Bergen in Norway, one of the



UBC Photo Warren Schmidt

Dr. Joel Bert

few places in the world where scientists are engaged in related clinical research.

"Without the clinical trials, the computer model would be pure speculation," Bert explains. "Our collaboration is absolutely essential to make the model relevant. Clinical experiments confirm what the mathematical simulation predicts will happen."

"In the process of developing the model, we also get a really clear picture of what's known and what's only speculated. We can pinpoint areas that need further study, areas that people working in a clinic with burn patients don't see." The Norwegian research team can provide him with some of that information.

As more is discovered about how the factors relate to each other, Bert updates his mathematical model.

The use of computers in the medical setting is still a long way off. It's taken Bert years of research to get this far. But local doctors who treat burn patients are interested in his work.

"We cannot characterize human beings simplistically, but at least this model is a first step," he said.

"What's needed is increased funding for research projects like these from both levels of government," Bert says. His project is currently funded by research grants from NSERC, NATO and more recently, the Norwegian Science Council.

"Computer simulated models will never replace clinical judgment, but they will help doctors to follow things that may not be quite obvious," Bert said.

Bert has more than an academic interest in his research. Two of his children were severely burned in tent fire several years ago. "That wasn't the reason I got into this line of research, but it does give me a different perspective," Bert says.

Varah to head CICS

UBC's fledgling Centre for Integrated Computer Systems Research has a director at last.

Computer Science professor James Varah has been appointed to the post effective September 1.

Thirty faculty members representing six research groups in three departments are involved in CICS's collaborative efforts.

"The underlying thread throughout is interdisciplinary state-of-the-art computer-based research," Varah said.

A three-pronged effort of the departments of Computer Science, Electrical Engineering and Mechanical Engineering, CICS is an umbrella organization that also provides a focus for university contact with organizations in the public and private sector.

"It's a way to maintain better industrial relations and better contact with government agencies," Varah said.

With recent funding from the provincial government's Centres of Excellence program, CICS has finally become fully operational after three years of planning. Varah said they will be able to hire 10 faculty members over the next three years, increasing the scope and depth of computer-related research taking place on campus.

"With this enterprise underway, I would say that UBC will rank as one of the top four Canadian universities in this area," Varah said.

The three-year government funding covers equipment and infrastructure costs in addition to salaries.

According to Varah, future plans for CICS include construction of a new building to house the Computer Science department and CICS operations close to the McLeod (Electrical Engineering) building. But that project won't get off the ground under current funding.

"We hope to eventually get money for a new building," Varah said.

As a temporary measure, one of his first tasks will be to rearrange laboratory space to foster coordination between CICS researchers.

"There's also room for industrial affiliation and collaboration," Varah said. "It's clear that the provincial government thinks it is an important area of development and they want the industrial liaison part as well," he said.

A UBC alumnus (B.Sc. 1963) Varah, 44, earned a M.Sc. and Ph.D. from Stanford University before joining UBC as associate professor in 1971. He was head of the Computer Science Department from 1984 until last month.

UBC Calendar from P. 8

Hispanic and Italian Studies Seminar

The Staging of Plays in the corrales de comedias. Prof. John E. Varey, Principal, Westfield College, University of London. Room B320, Buchanan Building. 3:30 p.m.

1987 Ecology-Resource Ecology Seminar

Non-Darwinian Evolution: Saltatory Shifts in Breeding Systems and Morphology. Dr. Paul Hebert, Biology Department, University of Windsor. Room 2000, Biological Sciences Building. 4:30 p.m.

THURSDAY, OCT. 22

Psychiatry Lecture

Psychophysiological Correlates of Pain Control: Results of Transcultural and Laboratory Investigations. Dr. W. Larbig, University of Tuebingen, Tuebingen, West Germany. Room 2NA/B, Psychiatric Pavilion, HSCH. 9 a.m.

Medical Grand Rounds

Hemopoietines and Therapeutic Possibility in Hematologic and Inflammatory Disease. Dr. John Schrader, Director of Biomedical Research, UBC. Room G279, Lecture Theatre, Acute Care Unit, HSCH. 12 noon.

I.A.E.S.T.E. Meeting

Information meeting for The International Association for The Exchange of Students for Technical Experience. Janet Land, Acting Director, Co-operative Education Programs. Room 1204, Civil & Mechanical Engineering Building. 12:30 p.m.

Cecil & Ida Green Visiting Professor

The Continuing Role of Botany in Medicine. Prof. E. Arthur Bell, Director, Royal Botanic Gardens, Kew, England. Room 114, IRC. 12:30 p.m.

English Colloquium

The Scarlet Letter: Symbolist Techniques and The Search for the Facts. Prof. W.F. Hall. Penthouse, Buchanan Building. 3:30 p.m.

Psychology Colloquium

In Vivo Electrochemical Studies of The Effects of Antipsychotics and Neuropeptides on Dopamine Release. Dr. Charles Blaha, Psychology, UBC. Room 2510, Kenny Building. 4 p.m.

Biotechnology Laboratory Seminar

Two Dimensional NMR as a Probe of Structural Homology Applied to Mutants of Cytochrome c. Dr. Gary Peilak. Inorganic Chemistry Laboratory, Oxford University. Lecture Hall 3, IRC. 4 p.m.

Finance Seminar

Portfolio Separation, Aggregation and The Equilibrium Rate of Return in a Recursive Economy: Theory and Tests. Prof. P. Buser and R. Green (Carnegie-Mellon). Room 419, Henry Angus Building. 4 p.m.

Economics Labour Workshop

The Comparative Statics of the Ward-Domar Labour-Managed Firm: A Profit Function Approach. Hugh Neary, UBC. Economics Conference Room 910, Buchanan Tower. 4 p.m.

Continuing Ed Evening Lecture

the Latest from Loch Ness: a Review on the Recent

History of the Loch Ness Monster Investigations and a Report on the July 1987 Conference of the International Society of Cryptozoology in Edinburgh. Dr. Paul Le Blond, Oceanography, UBC. \$8, students \$5. For information call 222-5261. Lecture Hall 3, IRC. 8 p.m.

Collegium Musicum Ensembles

John Sawyer, Ray Nurse, Morna Russell, directors. Sponsored by School of Music. Recital Hall, Music Building. 8 p.m.

FRIDAY, OCT. 23

Health Care & Epidemiology Rounds

Glaucoma: Approaching Costs of Management. Dr. Robin Cottle, Former MHS student, Health Care & Epidemiology. For information call 228-2773. Room 253, Mather Building. 9 a.m.

Social Work Conference

In Whose Interest and For What Purpose? Prof. Ben Carniol, Social Work, Ryerson Polytechnic. \$15, students \$7. For information call 228-2578. Chapel, Vancouver School of Theology. 9:30 a.m. - 6 p.m.

Collegium Musicum Ensembles

John Sawyer, Ray Nurse, Morna Russell, directors. Repeat of Oct. 22. Sponsored by School of Music. Free. Recital Hall, Music Building. 12:30 p.m.

Hispanic and Italian Studies Lecture

The Spanish Court Theatre in the Seventeenth Century (with slides). Prof. John E. Varey, Principal, Westfield College, University of London. Room A100, Buchanan Building. 12:30 p.m.

Medical genetics Seminar

Report on American Society of Human Genetics Meeting. Parentcraft Room, Main Floor, Grace Hospital, 4490 Oak St. 1 p.m.

Regional Mass Spectrometry Discussion Group

Analytical Techniques in Environmental Investigations. Dr. H.W. Hanssen, B.C. Ministry of Environment. 3650 Westbrook Mall, B.C. Research Building. 2 p.m.

Chemical Engineering Seminar

An Introduction to Laser-Doppler Velocimetry. Mr. V. Atwal, Graduate Student. Coffee at 3:15. Room 206, Chemical Engineering Building. 3:30 p.m.

Economic Workshop

Topic (TBA). Bengt Holmstrom, Yale. Room 351, Brock Hall. 4 p.m.

Public Lecture on Psychology

Lies of Love. R.D. Laing and Andrew Feldmar. \$15. Pre-registration required. For information call 733-4256. Room 100, Scarfe Building. 8 p.m.

Lifestyle Programs/Continuing Ed Lecture

The Shaman - Archetype of the Healer. Dr. Jess Groesbeck, Psychiatrist, University of Utah. \$8, students \$5. Lecture Hall 6, IRC. 8 p.m.

SATURDAY, OCT. 24

Lifestyle/Programs/Continuing Ed Workshop

Shyness. Dr. Lynn Alden, Psychology, UBC. \$40. Bring lunch. Lecture Hall 1. IRC. 9:30 a.m. - 3:30 p.m.

Lifestyle Programs/Continuing Ed Workshop

The Myth of the Wounded Healer. Dr. Jess Groesbeck, Psychiatrist, University of Utah. \$50 (includes lecture on Oct. 23). For information call 222-5238. Room 2N A&B, Psychiatric Unit, HSCH. 9 a.m. - 4 p.m.

NOTICES

THE VANCOUVER INSTITUTE



Saturday, Oct. 24

Botany And The Survival of Mankind. Dr. E. Arthur Bell, Director, Royal Botanic Gardens, Kew, England.

Saturday, Oct. 31

New Approaches to Old Diseases.

Lecture Hall 2, Woodward Instructional Resources Centre. Free. 8:15 p.m.

Office for Women Students Workshops

'Coping with Campus' Follow-up - Mature Students Support Group. Every Tuesday, now through Dec. 15. Room 223, Brock Hall (Women Students' Lounge). 12:30 - 1:30 p.m.

Avoiding Procrastination. Mondays, Oct. 19 and 26. Buchanan Penthouse. 12:30 p.m.

Career Building Now. Thursdays, Oct. 22 through Nov. 26. Room 223, Brock Hall. 12:30.

Assertiveness for Women - Basic. Tuesdays, Oct. 27 through Nov. 10. Room 106A, Brock Hall. 12:30 p.m.

Creative Techniques for Reduction of Stress and Anxiety. Thursdays, Nov. 12 through 28. Room 106A, Brock Hall. 12:30 p.m.

Free but registration required. For information call 228-2415.

Science for Peace Lecture Series

Nuclear War: Political and Scientific Issues. Michael Wallace, Political Science, UBC. Every Monday, now to December. Room 318 Hennings. 12:30 p.m.

Museum of Anthropology

The Literary Heritage of Hinduism. Exhibition of sacred Hindu texts discussing the significance of Spiritual Knowledge. Until November.

The Hindu Divine. Six independent exhibitions explore some of the many ways in which abstract concepts of the Absolute are depicted in Indian life through bronzes, stone sculptures, popular art and everyday objects. A seventh exhibition discusses Hindu, Sikh, and Islamic religious expressions in Vancouver. Until November.

Museum admission: Adults \$2.50, children, seniors, students \$1. For more information, call 228-5087.

Japanese Archery

Kyudo Club Vancouver. For information call Mr. Gonnami, 228-2427 or M. Karibjanian, 255-6560. International House, Lower Lounge. Tuesdays. 7:30 p.m.

Language Exchange Program

This program is for those interested in learning foreign languages or in exchanging a foreign language for English. Call International House between 9 a.m. and 5 p.m. Monday - Friday at 228-5021.

Theatre Department Play

Summer, a European play by Edward Bond, directed by Bruce Dow as an MFA Thesis production. Admission free but reservation required. For information call 228-2678. Oct. 13 - 17. Dorothy Somerset Studio. 8 p.m.

Continuing Education Lecture Series

Living with High Performance Athletes. 3 Tuesdays, Oct. 13 - 27. \$35. For information call 222-5238. Lecture Hall 4, IRC. 7:30 p.m.

Continuing Education Lecture

Health Care Update. 5 Tuesdays, Oct. 20 - Nov. 17. Various speakers. \$25, \$5 single lecture. For information call 222-5238. Robson Square Media Centre, 800 Robson. 12 noon.

Essay Skills Workshops

Nancy Horsman, Office for Women Students, UBC. Free to UBC students. For information call 228-2415. Thursdays, Oct. 22, 29 and Nov. 5. Buchanan B212. 12:30 - 1:30 p.m.

Computing Centre Non-credit Courses

The Computing Centre is offering a series of free non-credit courses during October and November, primarily for members of the university community using facilities of the Computing Centre. For information call 228-6611.

Thea Koerner House Graduate Student Centre

Fireside Lounge lunch service 11:30 a.m. - 2 p.m. (M-F); Lounge open 11:30 a.m. - 11:30 p.m. (M-Th), Friday 'til 1 a.m.; Monday: Video Nights - 8 p.m.; Wednesday: Music Nights - 8 p.m.; Friday: Dance Parties - 8 p.m. Everyone welcome!

Badminton Club

Faculty, Staff and Graduate Student Badminton Club meets 8:30 p.m. and Fridays 7:30 p.m. (except Oct. 16 & 23) in Gym A of the Robert Osborne Sports Centre. For information call Bernie 228-4025 or 731-9966.

UBC Calendar

MONDAY, OCT. 12

Japan Film Series

Ikebana - Art of Flower Arrangement and Music of Modern Japan. Films from the Consulate General of Japan. Sponsored by the Institute of Asian Research. Free. For information call 228-2746. Auditorium, Asian Centre. 12:30 p.m.

TUESDAY, OCT. 13

Botany Seminar

Systematics and synthetic thought in biology - an example from *Carex*. William Crins, Botany, UBC. Room 2000, Biological Sciences Building. 12:30 p.m.

Chemistry Seminar

New Cycloaddition Chemistry. Professor Michael Jung, Chemistry, University of California, Los Angeles, California. Refreshments from 12:30 p.m. prior to lecture. Room 250, Chemistry Building. 1 p.m.

Chemical Engineering Seminar

Determination of Crystallization Kinetics from batch Experiments. Dr. N.S. Tavare, Chemical Engineering, University of Manchester Institute of Science & Technology, Manchester, England. Coffee at 3:15 p.m. Room 206, Chemical Engineering Building. 3:30 p.m.

Computing Centre Seminar

Introduction to the FPS-164/MAX. Registration required. Forms are available from Computing Centre General Office (CSCI420). Room 308, Computer Science Building. 2:30 p.m.

Oceanography Seminar

Feeding Biology of thecate Heterotrophic Dinoflagellates. Dr. D. Jacobson, DOUBC. For further information, call Dr. Steve Calvert at 228-5210. Room 1465, Biological Sciences Building. 3:30 p.m.

Research Centre Seminar

Albinism - Recent Advances. Prof. Barrie Jay, Clinical Ophthalmology, University of London, U.K. Room 2J38, Children's Hospital, 4480 Oak Street, Vancouver. 4 p.m.

U/I Liaison Office and PATSCAN, UBC

Library Patent Service Seminar
Current Trends in Patenting Process in Canada and Abroad, and Opportunities for Inventors at UBC. Gerald Oyen, Law, UBC and Peter Graham, Canadian Patent Office. Free. For information call 228-5404. Lecture Theatre 1, IRC. 7 p.m.

WEDNESDAY, OCT. 14

Pharmacology & Therapeutics Seminar

Structure-Activity Relationship of Conformationally Restricted Excitatory Amino Acids in the Rat Spinal Cord, in Vitro. Mr. D. Magnuson, Physiology, UBC. Room 317, Basic Medical Sciences Building, Block C. 12 noon.

Early Childhood Education Research Colloquium

The Parent-Toddler Project at the Child Study Centre. Dr. Glen Dixon, Coordinator, ECE, Ms. A. Kasting, Research Associate. For information call 228-5232. Room 203 Ponderosa F. 12 noon.

School of Music Noon-Hour Series

Faculty Chamber Recital. Admission by donation. Recital Hall. Music Building. 12:30 p.m.

Forestry Seminar

Application of Molecular Genetics to Forestry. Dr. Sederoff, USDA Forest Service, Berkeley, California. Free. For information call 228-2507. Room 166, MacMillan Building. 12:30 p.m.

Geography Colloquium

Hydroelectricity in Norway: Changes in Attitudes and Values Towards a Resource. Prof. Just Gjessing, Geography, University of Oslo. Room 201, Geography Building. 3:30 p.m.

Economic Workshop

Learning Through Price Wars: An Exercise in Uncovering Supergame Strategies. Margaret Slade, UBC. Room 351, Brock Hall. 4 p.m.

Marketing Workshop

Marketing Decision Support System. Prof. Gordon Wright, Purdue University. Henry Angus Penthouse. 4 p.m.

1987 Ecology-Resource Ecology Seminar

Negative, Neutral and Positive Effects of Cyclones (Hurricanes) on Coastal Plant and Animal Populations: Short and Long Term Effects. Dr. Ian Poiner, Cleveland Marine Laboratories, Brisbane, Australia. Room 2449, Biological Sciences Building. 4:30 p.m.

Student Health Services Lecture

Learning More About Aids. Dr. Michael Rekart, Director, STD Control, Ministry of Health, BC. Free. For information call 228-7011. Shrum Lounge, Commons Block, House Vanier. 7 p.m.

THURSDAY, OCT. 15

Psychiatry Lecture

Memory Assessment in the Aged. Dr. David Crockett, Division of Psychology, Department of Psychiatry, HSCH. Room 2NA/B, Psychiatric Pavilion, HSCH. 9 a.m.

UBC Reports is published every second Thursday by UBC Community Relations 6328 Memorial Road, Vancouver, B.C. V6T 1W5, Telephone 228-3131.
Editor-in-Chief: Margaret Nevin
Editor: Don Whiteley
Layout: Jo Moss and Linda Coe
Contributors: Jo Moss, Lorie Chortyk, Debora Sweeney.



Fitness tester Alison MacCulloch takes the measurements of Canuck team member Raimo Summanen in the J.M. Buchanan Exercise Science Laboratory. More than 60 Canuck veterans and rookies spent a day in the lab recently to undergo pre-season medical and fitness testing.

Office for Women Students/Leon and Thea Koerner Foundation Seminar

An Uncommon Wealth of Women. Maureen McTeer, Rosemary Brown, Dame Nita Barrow, Ann Medina, Louise Rose. For information call 228-2415. International House. 9:30 a.m. - 4:30 p.m.

Medical Grand Rounds

Update on Non-Hodgkins Lymphoma. Dr. J. Connors, Cancer Control Agency of B.C. Room G-279, Lecture Theatre, Acute Care Unit, Health Sciences Centre Hospital. 12 noon.

Political Science Lecture

The Commonwealth, Sanctions and South Africa. Prof. James Mayall, International Relations, London School of Economics. Room A102, Buchanan Building. 12:30 p.m.

Forestry Burgess Lane Lecture

Resolving Conflicts in Multiple Resource Use. Dr. Dennis Dykstra, Forestry, Northern Arizona University. Room 186, MacMillan Building. 12:30 p.m.

Centre for Policy Studies in Education Seminar

Contending Ideologies of Education in South Africa. Dr. Kogila Adam-Moodley, Social and Educational Studies. For information call 228-2593. Room 123, Ponderosa Annex H. 2 p.m.

Psychology Colloquium

Smiles when Lying. Dr. Paul Ekman, Psychology, University of California, San Francisco. Room 2510, Kenny Building. 4 p.m.

Neuroscience Discussion Group

Arginine Vasopressin: New Roles in Brain for an Old Hormone. Dr. Quentin J. Pittman, Medical Physiology, University of Calgary. For information call Dr. Steven Vincent at 228-7039. Lecture Hall 1, IRC. 4 p.m.

Economics Labour Workshop

Collective Agreement Coverage and the Union Wage Impact in Canada. Craig Riddell, UBC. Room 910, 9th floor, Buchanan Tower. 4 p.m.

Biotechnology Laboratory Seminar

Comparison of Genetic Mechanism in Gymnosperms and Angiosperms: A Progress Report. Dr. Ronald Sederoff, Forestry, North Carolina State University. Lecture Hall 3, IRC. 4 p.m.

Institute of Asian Research Seminar

Indonesia: Legal Aid and Social Change. Prof. Daniel S. Lev, University of Washington. Free. For information call 228-3814. Room 604, Asian Centre. 4:30 p.m.

French Seminar

Le Portrait de Voltaire, ou les methodes de la critique d'attribution. Prof. Frederic Deloffre, 18th Century French Literature, Sorbonne University, Paris. Sponsored by Committee on Lectures. Room B-218, Buchanan Building. 7 p.m.

FRIDAY, OCT. 16

Health Care & Epidemiology Rounds

Playing Chicken at the B.C. Games. Dr. Peter Ribben, Dr. Timothy Ng, Dr. Carolyn Pim, Residents, Health Care & Epidemiology. For information call 228-2773. Room 253, Mather Building. 9 a.m.

Finance Seminar

Moral Hazard and Limited Liability... Implications for the Theory of Firm. Prof. J. Brander and B. Spencer. Henry Angus Penthouse. 3:30 p.m.

Calendar Deadlines

For events in the period October 25 to November 7, notices must be submitted on proper Calendar forms no later than 4 p.m. on Wednesday, October 14 to the Community Relations Office, 6328 Memorial Road, Room 207, Old Administration Building. For more information, call 228-3131.

MONDAY, OCT. 19

Japan Film Series

Films from the Consulate General of Japan. Sponsored by the Institute of Asian Research. Free admission. For more information call 228-2746. Auditorium, Asian Centre. 12:30 p.m.

Science for Peace Lectures

Understanding Strategic Doctrine. Prof. Michael Wallace, Political Science, UBC. Room 218, Hennings Building. 12:30 p.m.

Chemistry Seminar

Nonclassical Organometallic Chemistry and Catalysis at Actinide Centers. Prof. Tobin Marks, Chemistry, Northwestern University, Evanston, Illinois. Room 225, Chemistry Building. 2:30 p.m.

IAM - Applied Mathematics Seminar

Numerical Solution of Viscous Flow in a Branching Channel Using Boundary Fitted Coordinates. Dr. Stuart Bramley, Mathematics, University of Strathclyde, Glasgow. Room 229, Math Building. 3:45 p.m.

Biochemical/Medical Genetics Discussion Group Seminar

Molecular Analysis of the Human Y Chromosome: Mapping the Limits of the Pseudo Autosomal Region and Candidate Sequences for the Sex Determining Gene. Dr. Paul Goodfellow, The Imperial Cancer Research Fund Laboratories, London, England. Lecture Hall 4, IRC. 3:30 p.m.

Astronomy Seminar

The Extragalactic Distance Scale. Prof. Bob Schommer, Rutgers University. Coffee at 3:45 p.m. Room 260, Geophysics & Astronomy Building. 4 p.m.

Biochemical Discussion Group Seminar

Structure-function Studies of hemopoietic Growth Factors by peptide Synthesis. Dr. Ian Clark-Lewis, Biomedical Research Centre, UBC. Lecture Hall 4, IRC. 4:30 p.m.

UBC Film Society Film presentation

Raging Bull. Tickets \$2. Hotline 228-3697. SUB Theatre, SUB. 7 and 9:30 p.m.

TUESDAY, OCT. 20

Botany Department

Cecil and Ida Green Lecture: The Possible Ecological Significance of Plant Secondary Compounds. Arthur Bell, Kew Gardens, England. Room 2000, Biological Sciences Building. 12:30 p.m.

Geological Sciences Seminar

Earth and its Life: Systems Perspective. Dr. J. Veizer, University of Ottawa. Room 330A, Geological Sciences Centre. 12:30 p.m.

Faculty Development Seminar

Effective Use of the Overhead Projector. Mr. Don Stevens, Education Media Centre, UBC. For information call 222-5272. Room 2449, Biological Sciences Building. 12:30 p.m.

Chemistry Seminar

Rational construction of Molecular Metals. Prof. Tobin J. Marks, Chemistry, Northwestern University, Evanston, Illinois. Refreshments from 12:30 p.m. prior to lecture. Room 250, Chemistry Building. 1 p.m.

Oceanography Department

Direct Observations of Vertical Heat and Buoyancy Flux in a Well-developed Thermohaline Staircase: The C-SALT Experiment. Dr. R. Lueck, Chesapeake Bay Institute, The Johns Hopkins University. For information call 228-5210. Room 1465, Biological Sciences Building. 3:30 p.m.

Geological Sciences Seminar

Mineral Evolution. Dr. J. Veizer, University of Ottawa. Hotel Georgia. 4 p.m.

Statistics Seminar

Investigation on Methods of Statistical Pattern Recognition. V. Pikelis, Institute of Mathematics & Cybernetic, Lithuania S.S.R., Academy of Science. Room 102, Ponderosa Annex C. 4 p.m.

WEDNESDAY, OCT. 21

Pharmacology & Therapeutics Seminar

Paradoxical Hypertension Associated with Beta-blockers. Mr. R. Tabrizchi, Pharmacology & Therapeutics, UBC. Room 317, Basic Medical Sciences Building, Block C. 12 noon.

Institute of Asian Research Seminar

Contemporary Developments in the Pacific Rim. Dr. C.L. Hung, University of Calgary. Free. For information call 228-4686. Room 604, Asian Centre. 12:30 p.m.

Forestry Seminar

Dry Belt Douglas-fir and the Spruce Budworm. Mr. Alan Vyse, RPE, Ministry of Lands, Kamloops. Free. For information call 228-2507. Room 166, MacMillan Building. 12:30 p.m.

School of Music Noon-Hour Series

Alexandra Browning, soprano; Robert Rogers, piano. Admission by donation. Recital Hall, Music Building. 12:30 p.m.

Oceanography Department Seminar

Interactions of Juvenile Cod and Haddock About a Frontal Region on Georges Bank. Dr. I. Perry, Dept. of Fisheries and Oceans, St. Andrews, N.B. For information call 228-5210. Room 1465, Biological Sciences Building. 3:30 p.m.

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