

UBC Reports

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UBC potential "second to none" worldwide

Peterson invested as new chancellor

Every high school graduate in B.C. deserves a shot at a university education, regardless of his or her financial means, says UBC's new chancellor.

Leslie Peterson, invested today as UBC's 13th chancellor, said a way must be found to equalize opportunities for young people.

"We have to be sure that students have a crack at first year university," says the 63 year old Vancouver lawyer and former Socred cabinet minister.

"For whatever reason some students do not do well in high school. Others may not have had the advantages of the best secondary education available. There's a number of reasons why many young people blossom at a later date," Peterson explains. "They deserve a chance to prove that they are able to meet the high standards demanded of a university education."

Out-going chancellor Robert Wyman agrees that opportunities must be increased.

He says UBC is in the dark ages when it comes to registering new applicants and allowing transfers from other institutions.

"It isn't a question of greatly expanding the size of the university, but a question of not frustrating an applicant," he says. "If you talk to young people out there, a great many of them feel frustrated in the procedures they have to go through. I find the situation baffling."

Wyman said people often receive notification from other universities that they've been accepted before they hear from UBC.

"I think the system has got to be improved so people know where they stand earlier than they do at the present time," he says.

Peterson, a former Minister of Education, holds strong views on further education. And he's the first to admit there are enormous difficulties in implementing this kind of accessibility as

universities, UBC included, tighten academic qualifications for popular programs in the face of swelling enrolment. He says it would take coordination of resources at all three B.C. universities and the community colleges.

But that doesn't diminish his belief that people should have every opportunity to live up to their potential.

"Everyone should be given the chance to climb as high on the ladder of success as their talents will take them," he says.

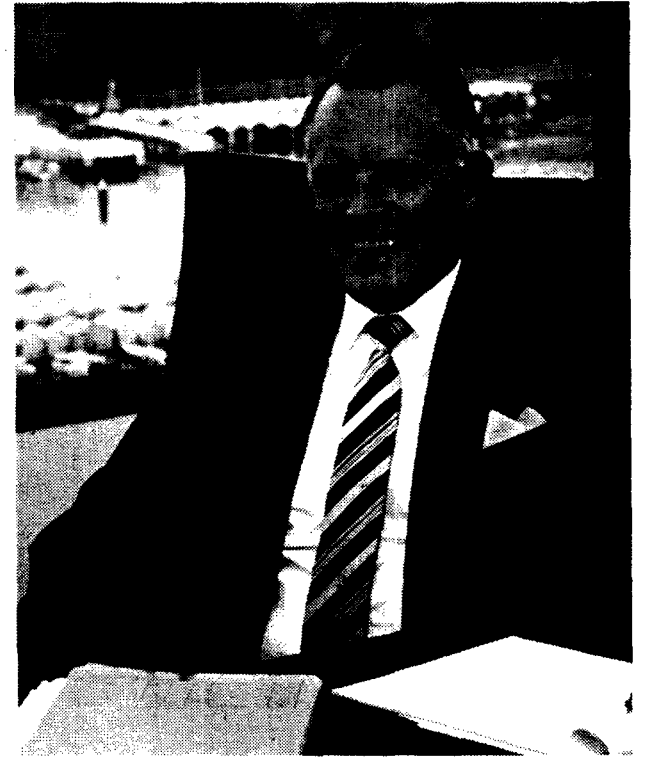
As proof of his own maxim, Peterson has enjoyed a number of successful careers. A graduate of UBC's law school in 1949, he practiced law in Vancouver and established his own company before being elected to the B.C. legislature in 1956. His long involvement with the Socred government included 13 years as education minister, 11 years as labour minister and four years as Attorney-General. More recently, he chaired last summer's Socred leadership convention at Whistler resort.

"I've made it very clear to the current government that in my role of chancellor I'm a spokesperson for UBC, and will be acting in the best interests of the university, not as an apologist for government policies," Peterson says.

When asked what he would like to accomplish during his term, Peterson quickly responds that he would like to see UBC gain higher international status and be in the position to attract the best academic researchers and students from around the world. "UBC has the potential of becoming a university that is second to none world-wide."

As titular head of the university, Peterson will be very much in the public eye as it's representative on all formal occasions. He's had a continuous relationship with UBC over the years, serving nine years on the Board of Governors, including six years as Board chairman. He's also been involved in a number of alumni activities and is currently head of the prominent alumni group the Wesbrook Society.

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Leslie Peterson

Hansen gets honorary degree

by Debora Sweeney

Rick Hansen found it tough getting his first UBC degree -- but he had to travel 25,000 miles around the world in a wheelchair to get his second.

Hansen returns to his alma mater today. His monumental accomplishments have prompted the university community to confer on him an honorary Doctor of Laws degree.

As he returns to the campus where he spent eight years of his life, Hansen remembers applying to the School of Physical Education and Recreation in 1975. Back then, he didn't get such a warm reception.

"I was a kid from Williams Lake, a community of about 8-thousand people," he said. "I sent my application off with great anticipation, explaining the accident and my condition. I wasn't prepared for the reply."

The university told him to take first year arts/sciences to get credits he could use toward a physed degree.

"First I was upset, then I rationalized that it was a sensible reply," said Hansen. "The people at the university had no idea of who I was or how determined I was to get my degree."

Hansen said he realized the university had to be careful about setting a precedent, "for me to complete my degree and do it with the expertise they would expect. So, I reluctantly entered first year arts and sciences."

He was admitted into the school of physed the following year.

Hansen hasn't been back to the university since he finished his Man in Motion world tour, but he has fond memories of his years on campus.

"The university opened up a whole new world for me -- it was magic," he said. "I was growing as an individual in a new environment and fulfilling my academic aspirations."

Hansen moved away from home for the first time and took up residence in Totem Park.

"I was lucky to survive," he said. "I realized that if I was going to keep my grades up, I'd have to get more serious and move off campus."

Getting around campus wasn't easy for him. During first year, Hansen was forced to use leg braces. He had to learn how to get into buildings through back doors and rear elevators. Hansen says he wasn't properly prepared for that approach.

"I remember going from Buchanan to the Biological Sciences building," he said. "I'd be on braces and the bell would ring when I was half way there, so I'd start hopping as fast as I could to get to class. I'd get there about two minutes late, completely out of breath. By the time I recovered, the class would be over and I'd have to go through the same thing again to get back to Buchanan."

By second year, he incorporated a wheelchair and used his braces only to get upstairs.

"The students of UBC respected the fact," he said. "While

umbrellas and bicycles would often go missing, my wheelchair would always be there when I came out of class."

Hansen took twice as long as most physed students to complete his degree -- eight years.

"I was training on the national team," he said. "I made athletics the priority."

He philosophizes that making it big in athletics was his once in a lifetime opportunity, while education is a lifetime goal.

His philosophy on education and his message to students, both able-bodied and disabled is, "look at education with a great deal of determination and perseverance which come from your strengths, hopes and dreams. Don't ever be afraid to pursue your dreams because of your situation."

Hansen takes that advice very seriously. He spent his 30th birthday Aug. 26, vacationing high in the Rockies with his fiancée Amanda Reid and reflecting -- looking back on the last two years and considering the future.

See Hansen Page Two



Rick Hansen

Forests building funding sought

by Jo Moss

The university has made a formal proposal to the federal government for \$40 million to build a new forest sciences building at UBC.

The bid for the multidisciplinary research and education centre was made last week to federal minister Bill McKnight, recently appointed to develop a western diversification program, says Vice President of Research Peter Larkin.

"The university has been involved in the concept of a world-class forest sciences centre located on campus since 1981," Larkin says. "The momentum has increased in the last few months and our proposal for a forest sciences building is a major step in the development of this centre."

The university initiative came out of a task force representing five faculties that was recently established by UBC president David Strangway. The committee moved quickly to formulate its proposal as soon as the federal western diversification program was announced.

The UBC faculties of Agricultural Sciences, Applied Science, Forestry, Graduate Studies and Science, and a number of other organizations have been involved in the discussions for a B.C. forest sciences centre which would facilitate an integrated approach to management of the province's number one resource. Simon Fraser University, and the University of Victoria are active participants as are representatives from the forest industry, federal and provincial government and agencies such as PAPRICAN (Pulp and Paper Research Institute of Canada), FERIC (forest engineering research) and Forintek (solid wood products research).

A provincial government committee is currently reviewing the status of forestry research in the province and is due to deliver its report by the end of the year.

According to Larkin, discussion participants agree on the concept of a first-class forestry centre on the Westcoast to provide a focus for forestry research and education in the province, and encourage collaboration between the public and private sectors.

Once the university receives the federal nod, plans call for the forest sciences building to be constructed south of the MacMillan building. As one of the largest buildings on campus, it would house all forestry-related research as well as graduate student programs. "The building is designed to encourage interaction among the many specialized fields that play a part in forestry research," Larkin says.

With the new facilities, future plans for the forest sciences centre would include the addition of government research laboratories and aspects of the Canadian Forestry Service and the B.C. Forest Service. A move is already underway to bring together agency research on campus by relocating both Forintek and FERIC with the Paprican facility in Discovery Park.

Special needs students get to school early

Getting to know the campus before classes start is advisable for any first year student. For UBC's special needs students, it's more than a good idea, it's a necessity.

Lap Khong has already made four trips to UBC with a sighted guide from the Canadian National Institute for the Blind. He's a first-year science student, and visually impaired, so he has to familiarize himself with each building that he'll use during the school term.

"There's a tactile map of the whole campus in the Crane Library, but to find my way around individual buildings, I have to go once with a guide," he explains.

"When I've oriented myself to a building and noted where things are like stairs, washrooms, and water fountains, then I can get around by myself with a cane."

For education student Gordon McGee, who is in a wheelchair, the major consideration is building access. To find out if a campus building has a wheelchair entrance, where it is, and when it's open, McGee must telephone beforehand.

"I have a phone in my car for that reason," McGee says. "I drive up to the university every day and simply call ahead to find out what's available."

McGee says his second consideration is invariably access to a washroom, and often that's not easy to locate. "People who are paralyzed from the waist down don't have a lot of control over their body functions. The first thing I do in every building is check out where the washrooms are and whether they are usable," he says.

"The one thing that would really help people in wheelchairs would be a sign at the front of every building indicating whether it is accessible and showing the location of the disabled washrooms," he adds.

Both McGee and Khong recognize the reluctance most special needs students feel toward discussing the concerns and difficulties that are unique to their situation.

"I wanted to say no to the interview, but I changed my mind," Khong says. "I think there does need to be more recognition of our needs. People generally don't know what we need or how we have to function."

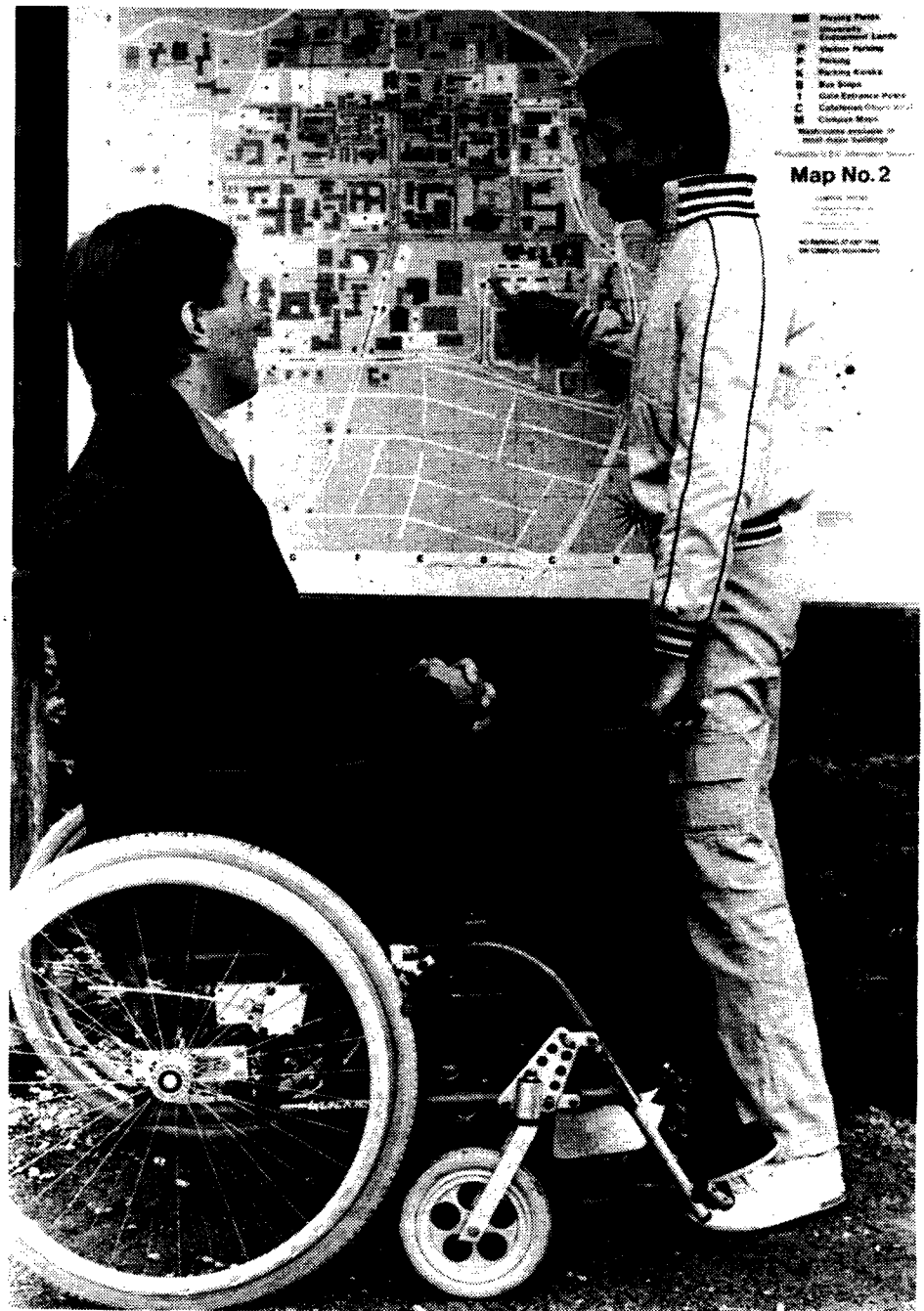
Visually impaired students, for example, benefit from any information that can be obtained by touch. A tactile map at a building entrance can provide orientation to an unfamiliar area. Tactile floor strips signaling the approach of stairs or other obstacles increase their mobility.

It was the specialized services of Crane Library which encouraged Khong to enroll at UBC. This unique resource for visually impaired students houses the largest collection of academic books in alternate media nationwide.

"If they don't already have my texts on tape, they will tape them for me, or supply the services of a reader," Khong says. Since he has partial vision, he can also make use of a close circuit television print enlarger to read some of his texts, but "it's a fairly slow process," he says.

For any special needs student planning to attend UBC, the Student Counselling and Resources Centre is the place to begin. It offers a number of specialized and support services, such as telecommunication devices for the deaf, which can make campus life a whole lot easier.

"They're fantastic," says McGee who as an Education student is fortunate to have all his classes scheduled in Scarfe building. "They'll even arrange to have a class location changed if it's going to cause a problem."



Gordon McGee and Lap Khong.

Hansen continued from Page One

At 30, Hansen's list of accomplishments and honors is phenomenal. Donations continue to pour in after his gruelling Man in Motion tour, which raised an estimated \$20 million for spinal cord research - it also raised awareness and support for disabled people.

Hansen is a recent recipient of the Vanier Award and in October, will become a member of the Order of Canada.

UBC President David Strangway said, "We're giving him an honorary Doctor of Laws degree in recognition of his dedicated community service and his commitment to creating worldwide awareness of the potential of disabled people." While Hansen is encouraged that the Canadian public has begun to understand that message, he notes there are still places in the world where fear and a lack of acceptance of disabled people exist -- and the university environment is no exception.

"I met a young student during the tour in Austria," said Hansen. "He'd completed three-and-a-half years of his physed degree. As he was preparing to go into fourth year, he was in a car accident and severely damaged his knee. In order to meet the requirements for fourth year, he had to complete some track and field qualifications which included running the 800 metres within a certain time. He came in 30 seconds slower than the time and the university wouldn't allow him to complete his degree."

For disabled students enrolling at UBC, Hansen suggests "cutting corners" by taking advantage of services such as the Student Counselling and Resources Centre, to settle in and find out about such things as accessibility of buildings on campus. He regrets not having done that himself during first year.

As far as his own education is concerned, Hansen says he's thinking seriously about completing a master's degree. Beyond that, he's at a fork in the road. As he enters his 31st year, he's contemplating the future and considering priorities.

Physically, since the Man in Motion tour ended in May, Hansen has been in, what he calls, a "resting phase" which should be complete by November. Then, he'll begin retraining and by next May, he'll decide whether he's up to competing again. (He's won 19 international marathons so far.)

That's not to say he isn't keeping busy. Sept. 19 is the official release date for the Man in Motion book he co-authored with Jim Taylor. It will be followed by a book tour. Hansen is also involved with the Premier's Advisory Council on the Disabled, which he convinced Premier Vander Zalm to establish. As well, he'll continue his campaign to convince the International Olympic Committee to include disabled people in the Olympic games. And next month, he's getting married.

Govt. funds liaison office

The federal and provincial governments have given the province's three universities \$672,000 to fund university-industry liaison offices for the next three years.

Stan Hagen, Advanced Education and Job Training Minister, said the offices will assist B.C. industry by linking them to research and development efforts at universities.

Provision for handicapped under study

by Jo Moss

Students with disabilities may find attending UBC less of a struggle in the near future thanks to a unique summer project.

Laila Kara, third year Rehabilitation Medicine, and Mike Brown, third year Architecture, are two able-bodied students who are combining their expertise on a two month project to investigate how the university's buildings can be made more accessible to students with physical limitations.

Sponsored by the UBC Student Counselling and Resources Centre, and funded by a provincial Challenge '87 grant, Kara and Brown are working with provincial government guidelines to come up with some specific recommendations for changes. So far, they've checked out the Main Library, Sedgewick Library and the Old Administration building, looking at such features as access, safety, washrooms, telephones, and water fountains. They've come up with a detailed list of recommendations for improvement.

"Our goal is to enable disabled people to use the facility independently whenever possible. We've tried to propose changes that will benefit the greatest range of users and we've emphasized modifications to the existing structure of the building, rather than a redesign," says Kara.

The Main Library was the first building to undergo scrutiny since it's one of the best-known campus landmarks and serves people both on campus and from the outside community. "Many of the modifications we recommended can be done very easily and inexpensively," Kara explains.

For people in wheelchairs, the biggest problem is getting into the library building, says Kara. They must use a service entrance at the rear of the building, where a freight elevator can take them to every floor, except the cafeteria. This entrance is open only during office hours, and people wishing to gain entry must phone ahead.

"Overall there is a real need for better

signage on each floor to show disabled students where things are and how to access them. For people who are visually impaired, tactile maps are invaluable in providing direction in an unfamiliar building," Kara says.

Other recommendations they made were: to allocate disabled parking close to the library building, install a buzzer at the service

Library needs reading help

More special needs students are enrolling at UBC this year than ever before and the Crane library is scrambling to find enough volunteers to meet the demands on its specialized services.

The Charles Crane Memorial Library uses about 150 volunteer narrators during the school term to record texts and reading materials for blind, visually impaired and print-handicapped students.

So far this fall, 10 students with visual disabilities have registered for classes, joining about 30 students who are continuing their studies.

"This is a record enrollment and more students with special book needs are expected once registration is over," said library head Paul Thiele.

The challenge is to keep up with the increasing number of disciplines in which blind and print-handicapped students are enrolling, areas such as physics, mathematics, computer science, social science statistics and engineering. The Crane Library is looking for volunteer readers with some background in these areas to not only read the texts to the special needs student, but also to interpret material such as formulas and graphs.

Volunteers who wish to participate in this unique program can call 228-6111 for more information.

entrance so that people with disabilities would not have to phone ahead, and make the wheelchair entrance accessible for people outside of office hours.

Proposed building modifications to assist visually impaired people include installing tactile warning strips on the floor to signal the beginning and end of stairs, putting in handrails that stretch the full length of the steps to guide the person's path, and removing hazardous objects that protrude into the aisles, Kara says.

Library staff have long recognized the problems the Main Library building poses for special needs students and willingly provide assistance by sending books to the more accessible Sedgewick Library upon request. "But it provides a good example of some of the difficulties special needs students face in buildings that were not designed with their needs in mind," Kara says.

Kara and Brown's experience has enabled them to compile a simple checklist of several hundred criteria which can be used by anyone to determine how a building meets special student's needs.

Their project will continue in the fall under the auspices of the Student Counselling and Resources Centre until the entire campus has been surveyed in detail. Recommendations will be forwarded to the recently inaugurated President's Committee on the Disabled which is currently reviewing all matters relating to disabled people at UBC.

Kara and Brown are also completing a campus accessibility map which should be available for distribution to special needs students later this month. "It rates each campus building on an accessibility scale, provides a floor plan, and gives relevant information such as the location of the nearest disabled parking and whether there is a disabled washroom," Kara says. "It's not as detailed as our building reports, but for any special needs students using the campus, it's a good start."

Chickens hold clues to osteoporosis treatment



Poultry scientist Leslie Hart.

Sick kids create stress

"Handing parents a child with a long-term illness is like giving skis to a novice and expecting them to ski down a mountain," says Nursing professor Connie Canam who recently designed a course to give parents of chronically ill children the specialized knowledge and skills they need to care for their child.

Ceremonial tradition

Most university ceremonies follow traditions dating back to the middle ages, and the installation of the chancellor is no exception.

The ceremony begins with the presentation of the new chancellor to Lieutenant-Governor Robert Rogers and the university community by President David Strangway. After the president's citation, Leslie Peterson is given the oath of office by the lieutenant-governor.

The president and Board of Governors chairman William Sauder then assist Peterson in a ritual known as the robing of the chancellor as he takes off his Board of Governors robe and puts on the chancellor's robe.

After messages of welcome to the new chancellor by the Minister of Advanced Education and Job Training Stan Hagen and the presidents of the Alma Mater Society and the Alumni Association, representatives of institutions around the world cross the stage to shake hands with the chancellor. The ceremony concludes with remarks by Peterson.

As the ceremonial head of the university, the chancellor serves on the Board of Governors and Senate, represents the university at formal occasions both on and off the campus.

Peterson continued from Page One

As chancellor, Peterson holds no administrative power, but he is automatically a member of the Board of Governors, which presides over all financial matters of the university, and the Senate, which deals with all matters of an academic nature. "I think the chancellor's role can have some influence by taking an active part in both bodies," Peterson says.

For a man that sets high standards and expects himself and others to meet them, it's fitting that Peterson will be invested as chancellor at the same ceremony in which wheelchair athlete Rick Hansen will receive an honorary degree. The two met by chance earlier this year at a rest stop on the Hope-Princeton highway as Hansen neared the end of his marathon tour, and Peterson was returning from a trip to the Interior.

"I was very impressed by Hansen and what he had accomplished," Peterson says. "We're seeing more and more people, young and old, overcoming their disabilities in a number of ways."

Her research investigating the effects a chronically ill child has on the family found that the parents suffered a great deal of stress in coping with the child's illness. Yet despite the common problems these families shared, there were few available resources to go to for advice and to combat their sense of isolation.

Now parents can take advantage of the Parent Education Program: Parenting Classes for Parents of Children with a Chronic Health Condition. Created by Canam and colleague Jennifer Chung last year, the eight-week, eight-session course covers topics such as how to find more information on the sick child's condition; how to communicate with the child about the disease or illness; and how to deal with siblings who feel they are not getting enough attention.

Funded by the B.C. Health Care Research Foundation, the free program is scheduled to take place again this fall at the Children's Hospital. For more information and registration call 228-7474 or 228-7486.

UBC grad heads council

by Debora Sweeney

A UBC alumnus has become the first female chairman of the Science Council of Canada.

Geraldine Kenney-Wallace, who earned her doctorate at the university, took over the council Sept. 1. She was first appointed to the council in 1983.

Kenney-Wallace, born in London, England in 1943, completed her undergraduate degree at Oxford University. She is currently a professor of chemistry and physics at the University of Toronto and chairman of its research board.

by Jo Moss

When scientists find out why chickens lay eggs they may be well on the way to finding out how to treat a disabling bone disease that affects one in four Canadian women over the age of 50, says a UBC Agricultural Sciences professor.

According to Dr. Leslie Hart, the cycle of egg laying in hens closely parallels the characteristics of osteoporosis, a condition where bones in the skeleton become so porous and brittle that they can fracture simply by lifting an arm.

Once thought to be a natural process of aging, health professionals now say osteoporosis will affect more Canadian women than either heart disease or cancer. Men are also susceptible, but it's eight times more likely to affect women. By the time the disease is diagnosed, it's usually too late to treat.

Osteoporosis is a complex problem for health professionals who don't know exactly what causes it or how it develops. What they do know is that calcium, the building block of bones, plays a major part, and it's a loss of bone mass that characterizes the disease.

That's where poultry scientists like Hart come in. Calcium is also the key element in egg production and the major ingredient of egg shells.

"In hens, as in humans, bones are constantly being remodelled. Calcium is removed and deposited due to normal every day stresses on the skeleton," Hart says. "This process is accentuated in laying hens because of the huge stress they have in producing eggs."

"In osteoporosis, this process of bone remodelling is defective because the calcium is not adequately replaced. A similar situation

exists in the laying hen as she ages so that she produces few eggs with thinner shells," Hart explains.

A better understanding of how hens maintain levels of bone calcium while they lay eggs may provide health professionals with the information they need to better diagnose and treat osteoporosis.

Some of the questions Hart will be trying to answer are: why egg production decreases and eggshells become thinner as the chickens grow older and what controls the release of calcium from the skeleton into the blood stream.

"There are a number of other factors involved in osteoporosis besides calcium. Vitamin D and the female hormone estrogen both influence the calcium levels in the body," Hart says. "It's not a simple disease and there will probably be no simple cure. But we do know some of the key players and by investigating the relationships between them, we may eventually be able to make some recommendations on how to treat it."

One thing Hart is sure of is that even if better treatment is found for osteoporosis, better nutrition will continue to be touted as a preventative measure. "Whatever your age, it's important to have adequate calcium on a regular basis. By the time osteoporosis occurs, the bones may have been leached of calcium over a period of many years as a result of poor nutrition."

Exercise is also strongly recommended by health professionals as a preventative measure. Activities which put stress on the bones such as walking or jogging, but not swimming, cause the body to put more calcium into the skeleton and build up the bone mass.

Strangway greets students

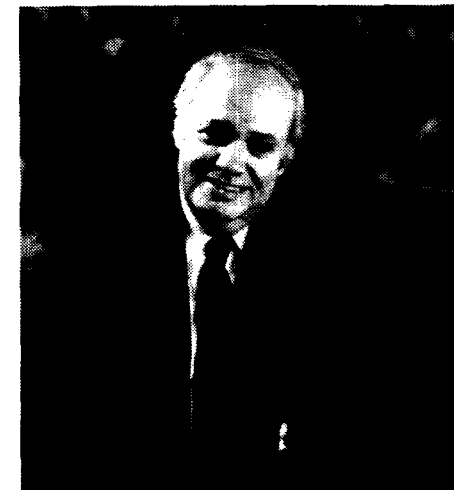
The official welcome to new and returning students at today's ceremony is one way President David Strangway hopes to give students a sense of the important role they play in the UBC community.

The idea of a special ceremony to open the academic year stemmed from an observation made by the president at this year's graduation ceremony in May.

"It dawned on me how much students enjoyed taking part in the ceremonial side of the university and feeling that they're part of an on-going tradition," says Strangway. "It seemed ironic that the first time students are exposed to the traditions of their university is when they're leaving."

"I hope today's ceremony will generate a sense of pride and excitement in being part of UBC and all that it has to offer."

Strangway says he would like to see the official welcome to students become an annual event. This year, letters of invitation to the ceremony were sent to all first-time students.



David Strangway, UBC President

Shrum Bowl returns

The Shrum Bowl is back. For the first time in four years the UBC Thunderbirds will take on the SFU Clansmen

to renew a twenty year old tradition of cross-town football rivalry.

The game that many say is the largest attended amateur sporting event in Western Canada is scheduled for Saturday, September 12 at the Swangard Stadium in Burnaby. Game time is 7:30 p.m.

Part of the proceeds from this year's event will be donated to the United Way. Proceeds will also go to UBC and SFU athletic programs and to the Rick Hansen Special Needs Bursary.

The Thunderbirds, this year's defending CIAU champions, took the last two Shrum Bowl games in 1981 and 1982. But SFU leads overall with a five win record out of ten games. One game was tied.

Named after the late Dr. Gordon Shrum, a scientist and administrator who played a significant role in the academic development of both universities, the first Shrum Bowl game was played in 1967. The founding chancellor of SFU, Shrum was a firm believer in encouraging Canadian athletes to stay in Canada by offering university athletic scholarships.

Tickets are on sale at all VTC and CBO outlets. Reserved seating under the covered grandstand is \$10 and general seating is \$6.



Out-going chancellor Bob Wyman will receive an honorary Doctor of Laws (LL.D) degree at today's ceremony marking the installation of UBC's new chancellor, Leslie Peterson.

TELEREG: let your fingers do the walking

Students enrolling at UBC have endured the dreaded registration week lines ups for the last time.

The notorious five-hour line ups are now a thing of the past, thanks to a new computerized telephone registration system called TELEREG, which enables students to register for classes using a touch-tone telephone.

The system, which was developed by UBC's Information Systems Management Office and Computec Consulting Canada Ltd., will be in place by March 1, 1988, for registration in spring and summer sessions.

Acting Registrar Alan McMillan says TELEREG has enormous benefits to both students and faculty. "Students can register up to three months before the start of classes using touch-tone telephones anywhere in the world," he said. "TELEREG also gives faculty accurate and up-to-date information on class enrolment before the term begins."

The new system allows students to add and drop courses, get a listing of the courses they're registered for, search for open course selections, and make changes to their programs right through the first week of classes. They are guided through the registration process by a computerized voice which responds to information being keyed in by the student.

Because TELEREG responds to the different tones generated by a touch-tone phone, rotary dial and pulse push button phones will not work with the system.

The average registration call is expected to take between three and five minutes. With 32 telephone lines, TELEREG will be able to handle about 480 calls each hour. The

Registrar's Office is hoping to keep TELEREG lines open seven days a week to make the system as convenient and accessible as possible.

A TELEREG hotline number will also be installed next year for students who don't have access to a touch-tone phone. Calls to this line will be taken by a member of the Registrar's Office who will enter program information for the student.

Touch-tone telephone registration was first introduced three years ago at Brigham Young University in the United States. UBC and the University of Alberta are the only Canadian universities to implement the technology so far, although several other universities are beginning to develop similar systems.

If you've ever wondered why registering for classes at UBC is such a marathon event, here's a look at some statistics from last week's registration process:

- * More than 23,000 students enrolled for classes, collecting a total of 130,000 program and course section cards;

- * An average of 6,000 students went through the final registration procedure in the War Memorial Gym each day, at a rate of 800 students an hour;

- * The Registrar's Office estimates they'll process more than 50,000 course changes during the first three weeks of classes.

Despite the line-ups and crowds, students interviewed by UBC Reports last week didn't seem to mind registration. As one transfer student from Simon Fraser University put it:

"It's just once a year. With SFU's semester system, you get three chances a year to screw up."



Where else would you rather be on a sunny day? Crowds of students pack into War Memorial Gym for final registration for the last time.

Historians seeking secret Chinese sign

Officials of the Barkerville Historic Park near Quesnel, B.C. are searching for an artifact which was removed from the park 26 years ago -- and they believe their search ends somewhere on the UBC campus.

Brian Fugler, the park's registrar, said, "I see it as a 26-year-old detective case, an unsolved mystery."

The mystery surrounds a 10-foot-long wooden sign, inscribed with Chinese

characters. The characters spell out the rules and regulations of a secret society of Chinese freemasons who lived in Barkerville in the late 1800's. The sign was displayed in the freemason society's building, which dates back to 1870.

In 1961, two UBC professors, W.E. Willmott and Stanford M. Lyman, stumbled onto the sign during a trip through Barkerville. They asked to borrow it for their research into secret Chinese societies in B.C. According to Fugler, the sign hasn't been seen since.

"The overall *raison d'être* is to make the building into an operable heritage site," he said "The *piece de resistance* would be finding the sign. It would be like finding the arms of the Venus de Milo."

The Willmott and Lyman article, entitled Rules of a Chinese Secret Society in British Columbia was published in 1964. In it, they wrote the calligraphy on the sign represented the rules set by the Chih-Kung T'ang -- one of the oldest existing Chinese fraternal orders which originated in the 17th Century.

According to the article, a chapter of the Chih-Kung T'ang was founded in Barkerville in 1862 for the mutual aid and protection of Chinese miners in B.C.'s hinterland. The rules were strictly confidential -- any member who discussed them with outsiders was sentenced to severe punishment.

So far, Fugler's attempts to track down the sign have been futile and he can't find any clues. Lyman has apparently moved to New York, Willmott to New Zealand. The park ranger who loaned them the sign died several years ago. Fugler has talked to a UBC history professor and people from the Museum of Anthropology and Asian Studies, as well as the vice-president of research, with no luck. He isn't even sure the sign is still at UBC -- but he hopes it is.

He is asking anyone who has seen or heard of the board in the last quarter century to phone him in Barkerville, at 994-3332.

Sedgewick items shown

Memorabilia belonging to the late Garnett Sedgewick, the first head of UBC's English department, is on display in the Special Collections Division of the Library until the first week of October.

Material for the display was donated to UBC by Sedgewick's heir, Prof. Robert apRoberts of California.

Born in 1882 in Nova Scotia, Garnett Sedgewick spent most of his life teaching English in B.C., first in Nanaimo and Vancouver high schools and at UBC from 1918 until his death in 1949.

Sedgewick was a well-known campus figure whose brilliant interpretations of Shakespeare and Chaucer are remembered by generations of students.

Photographer wins award

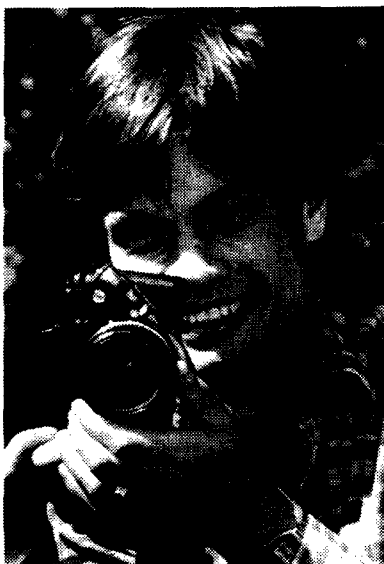
A UBC photographer has garnered a North American title.

Warren Schmidt, staff photographer at Media Services, was conferred with the title of Registered Biological Photographer by the Biological Photographic Association at its 57th annual meeting in Ann Arbor, Michigan last month.

Schmidt was recognized for his high standard of competence in biophotography--photography specializing in the animal, natural and human health sciences. All candidates must also successfully complete the BPA registry board exam, a rigorous three-part examination.

Schmidt is one of only two registered biological photographers in Vancouver and one of fewer than 400 world-wide.

The Biological Photographic Association is the only society of professional photographers in North America specializing in the sciences and began its certification program in 1964 with the support of American and Canadian medical and professional groups, and associations. BPA Members represent every major hospital in the U.S.A. and Canada as well as various medical, dental, veterinary and biology centres.



Warren Schmidt

UW seeks more participants

UBC's United Way committee wants to see campus participation increase to 15 per cent in this year's campaign. That would be a two per

cent jump from 1986 when 13 per cent, about 760 faculty and staff, contributed.

This year's campaign focus, participation rather than dollars raised, was chosen to emphasize the spirit of giving, says Dr. Cyril Finnegan, UBC's United Way campaign chairman.

"Many people think that the United Way funded agencies are for others, but statistics indicate that one out of every three people on the UBC campus has used one of these voluntary community agencies at some time,"

"Donors have total control over where they want their dollars to go," Finnegan says. The pledge card gives donors the option of including or excluding specific agencies. They can even choose to donate to an agency or service that is not associated with the United Way. And unlike other organizations, United Way is run largely by volunteers so that 98 cents of every donated dollar goes to the community groups with only two cents being held back for administrative costs.

UBC's campaign is scheduled to kick off after September 23, the day the United Way campaign for the Lower Mainland begins. The 1986 campaign at UBC raised more than \$115,000.

Open House on CBC

If you were one of the 150,000 people who visited UBC's Open House earlier this year, CBC's upcoming documentary on the three-day extravaganza will give you a chance to enjoy it all over again. If you didn't make it to the campus March 6, 7, and 8, here's a chance to see what you missed.

From the spectacular sights of the chemistry show to the drama of Goldilocks in the courtroom, a one hour documentary on Saturday September 12, at 10 p.m., captures the highlights of the occasion. Seven grade 12 students from Clinton, B.C. got their first taste of show biz as the stars of this CBC production which was co-ordinated by UBC's Community Relations Office.

Program time may vary throughout the province; check your local television schedule for confirmation.

Deadline near

The deadline is fast approaching for nomination of outstanding individuals for honorary degrees. September 30 is the last day the Senate Tributes Committee will receive nominations for consideration of degrees to be conferred during the 1988 spring convocation.

The committee welcomes nominations from the university or from the outside community. Biographical material and other information should accompany all nominations which can be addressed to the Ceremonies Office, Old Administration Building, UBC.

Health care system fails immigrants

Canada's health care system does not appear to meet the needs of immigrants and refugees, according to the chairman of a federal task force on the mental health of migrants.

Dr. Morton Beiser said the health care system may not even serve the general population properly. Beiser, the head of the social and cultural psychiatry division of UBC held hearings across the country and he said briefs including one from Toronto's Italian community led him to his conclusions.

"They told us the health care system was not able to meet their needs and that they felt cut off from the mainstream," he said. "They told us Italians have been a significant force in Toronto for at least three generations and that about one-in-seven of the city's population is Italian. If people representing one-in-seven of the population of a multicultural society are feeling cut off, then I'd like to know just what the mainstream is."

Beiser said he's astounded by the number of immigrants and refugees who feel disenfranchised from the system in Canada, including people who have been in the country for generations.

"We heard from many large and small ethnic organizations that the system is insensitive to their cultural and linguistic needs," he said. "If so many people feel disenfranchised, then who is the system serving?"

According to the task force's interim report, migration itself does not necessarily result in an increased risk of mental disorder. As well, immigrants and refugees do not appear to have a higher rate of emotional disorder than the general population. But, traumatic situations before and after migration are associated with emotional problems. They include:

- * A drop in personal socio-economic status.
- * Separation from family.
- * A lack of friendly reception in the new country.
- * Isolation from persons of similar cultural background.
- * Traumatic experience or prolonged stress prior to migration.

* Adolescent or senior age at the time of migration.

Another problem is that mental health services are used less frequently by migrants than by native-born Canadians. Beiser said many immigrants and refugees refuse to seek help because of the intense stigma. He pointed to a small North African community in Winnipeg.

"The spokesman for the group told how one young man had suffered a psychotic illness and was admitted to hospital," said Beiser. "The spokesman talked about the sense of outrage the community felt that this man was in hospital for three weeks before anybody knew about it, and that the community had to know."

While Beiser admits there are no solutions for some situations, his task force was handed a number of suggestions. They include:

- * Expanding existing programs and policies to help migrants adapt to their new homes.
- * Developing community education and outreach programs for immigrants and refugees.
- * Providing cross-cultural training for health care professionals.

Beiser also said if migrants are not literate when they come to Canada, making them literate in their native languages once they're here is a major step toward helping them integrate.

"In Kitchener, Ontario, they have a program where they teach people to read and write in their own language first and they find it makes it much easier for them to learn English," he said.

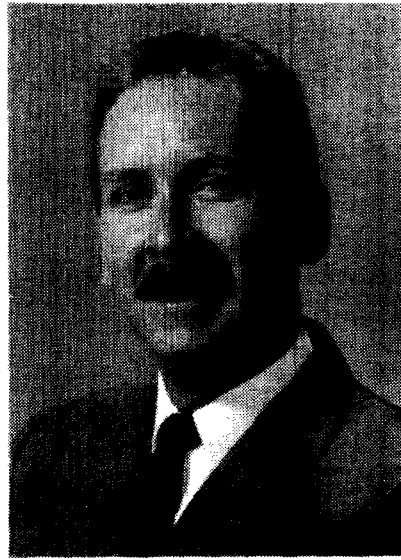
The task force chairman believes Canadians have a moral obligation to help immigrants and refugees integrate.

"We're inviting people into the country and we're doing it from our own self-interest," he said. "If people are helped to integrate better, they'll contribute more to our society. If we don't help them, they could end up in our health care system."

The task force was sponsored by the Minister of State for Multiculturalism and Health and Welfare Canada in association with the Canadian Mental Health Association. Its final report and recommendations are due March 31, 1988.

People

UBC researcher gets first pharmacy award



Peter Jewesson

Dr. Peter Jewesson, assistant professor in Pharmaceutical Sciences, has won Canada's first Pharmacy Career Award totalling \$50,000 over two years.

The award, given by the Pharmaceutical Manufacturer's Association of the Canada Health Research Foundation, will allow Jewesson to devote more time to his research to improve the use of antibiotics in hospitals.

Jewesson's work is aimed at maximizing the effectiveness of available antibiotics while minimizing their toxicity.

As well, he's working to ensure the most economical drugs are applied. Jewesson claims he saves Vancouver General Hospital \$6,000 per month in drug costs.

His research also involves the evaluation of new antibiotics not yet released in Canada.

Former UBC football star Glenn Steele has joined the staff of the Department of Athletics and Sports Services as information director for Thunderbird sports. A graduate of UBC's

Physical Education and Recreation program in 1984, Steele played with Winnipeg and Ottawa teams in the Canadian Football League. In his new position Steele will coordinate the sports information for the upcoming Thunderbird football training campus and season and take on coaching duties for the university teams.

The first of a series of unique videos aimed at cancer patients has won an Award of Excellence for UBC's Biomedical Communications department. Produced by associate director of the department, and former cancer patient, Bob Quintrelle, the video took the top award at a recent video festival sponsored by the Association for Media and Technology in Education in Canada.

Entitled 'Cancer: Its Treatment and Cure', the video helps people who have been diagnosed as having cancer better understand the disease and its treatment. Future videos on specific cancers are already planned. The first of these, on breast cancer, has just been completed.

Professor emeritus Samuel Rothstein has been selected as the 1988 recipient of the Association for Library and Information Science's award for outstanding professional contributions to library and information science education. Rothstein was the founding director of UBC's librarianship school.

Economics professor John Hellwell and head of ophthalmology Stephen Drance were two of five people from B.C. who were named to the Order of Canada recently. Both were made officers. In all, 23 officers and 46 members were appointed.

Prof. Donald Mavinic of UBC's civil engineering department has received the Keefer Gold Medal from the Canadian Society of Civil Engineering for the best civil engineering paper published in Canada in 1986.

U.S. drug company finances UBC scientists

by Debora Sweeney

Six UBC scientists are moving from their ground floor university lab to an ocean front research facility to open a multi-million dollar biopharmaceutical industry.

Dr. Pieter Cullis, the biochemist who heads the venture, said the team is working to develop anticancer pharmaceuticals that will eliminate cancerous tumors without causing toxic side effects to areas of the body which are not diseased.

The new business, called the Canadian Liposome Company (CLC), is a subsidiary of the Liposome Company Inc. of New Jersey. The parent company is financing the venture at a guaranteed minimum of \$1 million a year for three years to get the business off the ground. After that, a new contract will be negotiated. CLC will open its doors in the Lonsdale Quay area of North Vancouver in September.

"I believe in a few years, liposomes will form the basis of an important pharmaceutical industry," said Cullis.

Liposomes are tiny drug-carrying sacs composed of the same fatty acids or lipids that make up cell membranes. Lipid membranes can be made to form spheres which entrap drugs inside, for delivery later to a diseased site. Developers say one day they may be targetted almost as guided missiles, carrying massive doses of drugs to their targets without being absorbed by other parts of the body.

Cullis' team has developed the use of liposomes to deliver the highly toxic drug, doxorubicin, the world's largest selling anticancer drug. Administered freely into the bloodstream at doses high enough to kill cancer, doxorubicin can cause cardiomyopathy which leads to congestive heart failure. When UBC researchers used liposomes to administer the drug to animals with tumors, they found their survival time increased with minimal heart damage.

CLC's task is to make the liposome-doxorubicin combination and other liposome-drug combinations suitable for commercial distribution. Cullis believes his company's

research and the parent company's clout will make it work.

"It's been our tactic to get associated with somebody who really does have business expertise and the pharmaceutical contacts we need," he said. "The Liposome Company is based in an area where you find Squibb, Johnson and Johnson -- just about every major pharmaceutical company you can think of -- so they can set up research and

development partnerships with those companies. From a business point of view, it's almost essential."

Not only from a business perspective, but from a practical point of view Cullis said it was essential to take his team out of the university environment and into the business world. The five core people who work with him are research associates and post-doctoral fellows who have no tenure at the university. Cullis

was afraid he'd lose his key researchers if he didn't have something worthwhile to offer them.

"You stay in these positions for four or five years and that's normal but if you stay for 10 years, you find your prospects of getting an academic job are limited," he said. "The only solution I could see was starting up a subsidiary here so we could establish a career structure and pay that would attract people to stay."

The new business was spawned from contract research by the university for the Liposome Company during the last three years. CLC will continue to use UBC resources through contract grants to the university and Cullis will maintain a tenured professorship.

He estimates it could take five years before his company is ready to market its research.



Dr. Pieter Cullis and Edgar Mertz, President of the Liposome Company Inc.

In Memoriam

Psychology professor Robert E. Knox has passed away after a lengthy illness. He was 58. Best-known for his research into the psychology of gambling and risk-taking, Knox also played a significant role in a number of other departmental areas notably curriculum development and the new Douglas Kenny building.

Remembered by faculty and students alike for his sense of humour, quiet leadership and effective teaching, Knox was active in UBC's Guided Independent Study, Continuing Education, and International programs. Few people were aware that he also worked with the United Way evaluating their crisis intervention services.

A graduate of Occidental College, Los Angeles, Knox came to UBC 23 years ago from the University of Oregon where he received his PhD. The psychology department proposes to name a master teaching award in his honour.

Leukemia breakthrough aim of research team

by David Morton

A team of researchers has high hopes that a new leukemia and lymphoma treatment developed at UBC will represent a major breakthrough in the fight against cancer.

Drs. Allen Eaves, Connie Eaves and Dagmar Kalousek have discovered that placing blood-forming bone marrow cells in a specially prepared tissue culture, results in the spontaneous, selective loss of leukemic cells.

The newly-purged, cancer-free marrow cells can then be re-infused into the patient, whose remaining marrow cells have been eliminated by intensive radiotherapy and chemotherapy. Theoretically, the new marrow cells will then replenish the blood cell supply, resulting in cancer-free blood.

The discovery is already undergoing clinical testing in Great Britain, and more testing is planned in Vancouver. Initial results are positive, according to Dr. Allen Eaves.

"It's still a mystery to us," says Eaves, head of the Haematology Division, Faculty of Medicine. "We don't yet know why we get this loss of leukemic cells, we just know we get it in the majority of cases."

The researchers received a group grant of approximately \$780,000 each year for five years from the National Cancer Institute of Canada. Based at the B.C. Cancer Research Centre's Terry Fox Laboratory, the seven-scientist team is a multi-disciplinary group specializing in haematology and oncology, the study of normal and cancerous blood cells.

"We have a whole list of questions that must be answered in this area," says group leader, Dr. Connie Eaves, who is the wife of

Terry Fox Lab director, Allen Eaves.

Cancers of the blood (leukemia) and the lymphoid system (lymphoma) arise in a group of primitive cells called stem cells. They reside in the bone marrow where the vast majority are in a resting (non-dividing) state. Each of these cells can produce large numbers of cells.

To produce the diversity of cells present in normal blood, stem cells must divide and mature in a highly controlled manner. It is this highly complex control system that is the focus of research for the Terry Fox Laboratory.

Leukemia or lymphoma results when some stem cells begin to grow too rapidly or fail to mature properly. The trick is to get rid of the cancerous cells without adversely affecting the production of blood cells.

"We are trying to understand the basic mechanisms of growth and differentiation in the blood-forming system and how those basic mechanisms become abnormal in human malignancies," Eaves says.

One researcher, biochemist Dr. Gerald Krystal, is attempting to purify the growth factors, hormone-like chemicals, that tell stem cells to begin division. He is also attempting to purify the receptors of the cells that receive the message.

The objective is to determine how the machinery of the cell is indirectly controlled by interactions between receptors and growth factors. By isolating growth factors and receptors in the lab, Krystal can examine this relationship more closely.

Krystal, along with other researchers in the group, believes new cures for some leukemias and lymphomas will be developed over the next few years. What remains is the identification and understanding of the control mechanisms of blood cell formation.

"We're definitely on the right path," he says.

The Terry Fox Lab is sponsoring a conference on stem cells and autologous bone marrow transplantation September 20-22. For more information, call 877-6070.



Members of the leukemia research team: Back row, left to right -- Drs. Allen Eaves, Gerald Krystal, Dixie Mager, Peter Lansdorp, Fumio Takei, R. Keith Humphries. Front row, left to right -- Drs. Connie Eaves and Donna Hogge.

Computers aid map making

by Jo Moss

Students in UBC's three forestry departments will be able to spend less time drawing maps and more time learning how to make forest management decisions, thanks to the acquisition of a new computer system and software package.

Called Terrasoft, it's a geographic information system which allows students to access more and better information in a faster way than was possible before. "It speeds up the whole process," says forestry professor Peter Murtha. "Student projects sometimes took weeks of homework to assemble the statistics and data in a way that could be useful. Now the busy work is taken care of."

Funded by \$75,000 from the provincial government's Funds for Excellence program, the new system is already in place and will be incorporated in forestry courses wherever possible. One significant feature is its compatibility--it can be used in virtually any computer in the building.

The program will also keep students a step ahead of the high-tech changes in the forest industry. Terrasoft is available commercially and several forest companies, as well as some municipal communities, have entered into computerized management of the forest resource. The provincial Ministry of Forests and Lands employs similar software in their district and regional offices.

The system offers possibilities of manipulating and storing data that enables foresters to take all factors into account before making forest management decisions. Hundreds of variables such as tree height, species, and presence of disease are integrated almost instantly and displayed on a monitor, allowing the forester to view a number of possible scenarios.

"What took forest technicians hours to produce before, the computer can produce in a matter of seconds," Murtha says. It can also handle problems too complicated for manual effort.

Murtha and research technician, Raoul Wiart, are working to integrate information received from remote sensing--images gathered from sensors on satellites or airplanes--with forestry data available through the new computer. Dubbed FIRMS (Forest Information Resource Management Systems), it is already attracting international attention.

Murtha says the biggest problem is that much of the needed information is currently unavailable. Either it has not been entered into an information bank, or it is not of the desired quality.

Grandma should get up and boogie

Too few elderly women exercise enough to maintain their health despite increased health promotion programs, says Physical Education professor Patricia Vertinsky. It's partly a result of society's view of older women as grandmothers in a rocking chair, and of beliefs held by older women that vigorous physical exercise involves the risk of injury and is bad for their health, she says.

Vertinsky recently received a grant of \$80,000 from the Social Sciences and Humanities Research Council of Canada to investigate why elderly women hold these

beliefs and how deeply rooted they are. The government is concerned that many of the 2.5 million elderly women in Canada are not responding to public health programs and pose a potential burden on the health care system.

Vertinsky's research will focus on the medical journals and popular health manuals of the late 1800's and early 1900's in Canada, Britain and the United States to trace the evolution of attitudes towards women's health. "The development of these attitudes is intimately connected with the role of the

medical profession," she says.

Some of the medical opinions of the late 1800's may astonish us today, but what is more surprising, she says, is how many of those attitudes linger into the 1980's in one form or another.

"In the 19th century, for example, women were expected to maintain good health for the duties of motherhood, but after that time their health was of less consequence to society. Even during their childbearing years, they were told that over-exertion taxed their bodies and "wasted energy". They were warned that too much exercise would damage their reproductive organs.

"Many older women today have a great fear and anxiety about involving themselves in exercise. They believe that exercise is a high-risk activity. These attitudes have remarkable staying power despite the movement of our society towards a healthy, physically active lifestyle," Vertinsky says.

"Society's image of elderly women in the 80's is that they should be maternal and grandmotherly and the medical profession has tended to foster this belief by cautioning older women against exercise a great deal more than is necessary," Vertinsky says.

One of the difficulties in her study will be to define when a woman was considered old at the turn of the century. Medical literature of the time indicates it was after menopause, a situation which, according to health professionals of the time, was followed by ominous diseases and physical and mental decline.

Faculty paycheques get fatter this month

by Debora Sweeney

UBC's 1,800 faculty members got the general increase they've waited four years for when they received their pay cheques Aug. 31.

Earlier in the month, a salary/benefit package for 1986/87 and 1987/88 was ratified by the Board of Governors and the Faculty Association, and approved by the Compensation Stabilization Commission. That gave the go-ahead for the adjustments to be made.

Dr. Albert McClean, associate vice-president, said the cheques were processed quickly because deans were asked to key tentative salary adjustments into their faculty computers ahead of time.

"We were working on the assumption that the package would be approved," he said, "otherwise people wouldn't receive their adjusted wages until October or November. In theory, it was a bit of a gamble."

The 1986/87 agreement includes a general increase of 1.05 per cent, and salary adjustments and medical services benefits for sessional lecturers.

Highlights of the 1987/88 agreement include a general increase of 4.98 per cent and the following benefits:

* The lifetime maximum benefit for

orthodontic treatment of each child is raised from \$850 to \$2000.

* Members are permitted to take up to six units of courses per year without tuition fees.

* Sessional lecturers may enrol in the dental plan.

* Provision is made for payroll deduction for optional coverage in the group life insurance plan.

* A separate reserve long term disability fund with premiums paid entirely by those covered. Premiums must be paid solely by those covered in order that anyone receiving long term disability payments receive the payments tax free.

* Tuition rebate on successful completion of each session for member's dependent children under 25 enrolled in undergraduate programmes of up to 60 units.

The tuition waiver benefit created waves of controversy in the local media. One editorial labelled UBC professors elitist. However, Dr. Joost Blom, president of the Faculty Association was quick to point out that at least 25 Canadian universities have contracts that include similar programs of free tuition for faculty offspring. Blom said he doesn't believe UBC has moved up much from its 18th place in the nation for faculty salaries and benefits.

UBC library wins award

The Canadian Library Association has awarded a certificate of merit for innovative programming to UBC's Library for activities and displays created for Open House '87, a campus-wide event held in March.

The UBC program was one of 10 chosen from 59 Canadian submissions. Award-winning programs were highlighted in a display entitled "Discovery '87 -- A Showcase of Library Innovations" at the association's annual convention in June.

Astronomers build "one of a kind" imaging device

by Jo Moss

In the Geophysics and Astronomy workshop, engineering technician Dieter Schreiber is putting together a device that is the only one of its kind in the world.

That's not unusual for the largest university astronomy department in Western Canada which routinely designs and builds high-tech imaging devices that are attracting international attention.

When it's completed, the four-foot long silver device will be attached to a large observing telescope to help its designer, astronomer Paul Hickson, investigate distant galaxies and the remnants of exploded stars.

"The light we see coming from these distant galaxies has been travelling for billions of years," Hickson explains. "We see the galaxies as they appeared long ago—we're looking back in time."

Some of the questions astronomers like Hickson are trying to answer are whether there were as many galaxies in the past as there are now, and whether they were brighter or dimmer. "With this information we can trace the history of the universe and predict what will happen in the future. Will the universe expand forever, or will it collapse in a big crunch?" Hickson says.

What makes this particular device unique is its capacity to speed up the information gathering process by allowing astronomers to see a number of specific objects at one time. It will give Hickson more and better information about the objects he's viewing.

(Even the best telescope can only "see" so far back in time. Information about the earliest beginnings of the universe reach us today as



Paul Hickson.

microwaves, not light, and many astronomers use microwave detectors and other instrumentation, rather than telescope observation, to study the sky.)

Like similar observing devices, Hickson's instrument has light filters top and bottom, which break up the light entering the telescope into different colours of the spectrum. By

inserting different filters, Hickson can block parts of the spectrum allowing only certain kinds of light to enter.

"What this means is that if you're looking for stellar objects emitting ionized hydrogen, for example, you can block out all other light sources so that only the light from that hot gas appears," Hickson says. "Other devices can

only record one spectrum of light at a time. With this new instrument, a number of different spectra can be recorded simultaneously. That means we can look at a number of different objects at one time."

Another improvement is the ability of this device to "see" farther. "Because we are using a large number of filters to determine what we want to view, we are not restricting the amount of light entering the telescope as other devices do," Hickson says. That means it's possible to study even fainter light sources, ones more than five billion light years away.

Scheduled for completion at the end of this month, Hickson will test the instrument at the Canada-France Hawaii telescope in the fall. "It's the first time they have ever given me observing time before an instrument was finished," Hickson adds with obvious excitement.

The construction process is laboriously slow. After an initial design is drawn up, some of the work may be contracted out to local firms with specialized equipment. In many cases, the exact materials needed are not readily available. The lens for Hickson's imaging device was made by an optical specialist in Alberta. It's no wonder the Astronomy and Geophysics department produces just one or two instruments a year.

Once the research for which they were designed is completed, many devices are sold at cost to observatories. Hickson said his device cost about \$100,000 to build. More frequently, the innovative devices attract the attention of other groups world-wide who then approach the department for advice and consultation in producing similar instrumentation.

Outreach targets rural patients

As recently as 10 years ago, a person who suffered from severe depression and who lived in rural British Columbia could not get psychiatric help without travelling to a major urban centre. Only four of the 232 certified psychiatrists in the province practiced outside of the Lower Mainland, Victoria and the Okanagan. For more than a quarter of a million people in northern B.C., the only psychiatrist was in Prince George.

Today, all that has changed thanks in part to the University of British Columbia's Outreach Program, in part to a developing network of mental health care services throughout the province. Dr. Morton Beiser, the director of the program at UBC's Health Sciences Centre says more people can now be treated in their own communities, close to the support of family and friends.

"The Outreach Program is a happy meeting of a perceived need for psychiatric services in the communities and government

understanding," says Dr. Beiser.

The UBC Department of Psychiatry and the provincial Ministry of Health designed the program in which the psychiatry departments of six hospitals in Greater Vancouver lend their services to northern and remote communities. Psychiatrists are flown into small towns to treat patients and to consult with family physicians and mental health professionals working in local facilities. They offer refresher courses for physicians and other health care personnel as well as telephone consultation on specific cases.

When the program began in 1976, patients had to wait for up to six months for psychiatric treatment. Now Dr. Beiser says, they can be treated almost immediately.

Dr. Beiser says the success of the Outreach Program is measured by the testimonials of those front-line medical practitioners. Physicians say it's easier for them to make psychiatric referrals, and crises are handled

smoothly and efficiently because of the ready availability of consultation by phone. They also report an increasing accuracy in making diagnoses.

But while Dr. Beiser is delighted to have that kind of feedback, he says he's frustrated that his department is unable to measure its success in more concrete terms.

"I'd like to see the development of research to evaluate what we're doing," he says, "and I'd like to be able to talk more about success in terms that can stand up to scientific scrutiny."

New developments lend a sense of urgency to put in place a means for evaluating the program. The provincial government has increased funding to Outreach by more than \$400,000. The department will soon begin developing a computerized linkage system with participating hospitals and the local communities so that permanent patient treatment records can be programmed and analysed for statistical purposes.

Seniors get study program

Thirty men and women aged 55 and over will be accepted this fall into a new UBC study program that recognizes the importance of life-long learning.

The Third Age Community of Learners and Scholars is a new concept in Western Canada, says John Edwards of the Centre for Continuing Education. Students in the program will choose, direct and pursue their own learning, making use of the intellectual and physical resources of the university.

Study and discussion groups will meet weekly during at least two university terms. Students will select chairpersons to preside over the weekly seminars and act as a liaison with the Centre for Continuing Education.

Each student will be responsible for investigating an aspect of the topic being studied. Group members will have access to the university's libraries, and can arrange for individual tutorials if they wish.

Participants will attend dinner colloquiums with guest speakers and UBC faculty members at the UBC Faculty Club. The annual fee is \$350. Membership is open to men and women 55 and over who have substantial experience in business, the arts, a profession or as community volunteers.

The only prerequisites, says Edwards, are a love of learning, and of reading, and the desire to be an active participant.

"One must want to assume the roles of information-giver, discussion participant, and informed listener," he says. For more information, call 222-5252.

Law grant set

Communications Minister Flora Macdonald has announced \$192,000 in funding from the federal government for on-going work on a computerized sentencing database for judges.

The sentencing database, which allows judges to quickly access and review sentences given in cases similar to the one they are considering, is just one of several computer projects under way in UBC's Law Faculty.

In 1985, IBM Canada Ltd. signed a \$2.2 million, three-year agreement with UBC to provide equipment and support for research into computer applications in the legal profession. Since 1986 additional funding has been provided by the Law Foundation of B.C. (\$307,000) and the Social Sciences and Humanities Research Council of Canada (\$106,000). The B.C. Ministry of the Attorney General and the Continuing Legal Education Society of B.C. have also provided support for the project.

UBC Calendar

GRANT DEADLINES October 1987

- * Agriculture Canada (CPD)
 - New Crop Development Fund, proposal [31]
- * Alberta Heritage Fdn. for Medical Research
 - Medical Research Fellowships [1]
- * American Chemical Society: PRF
 - Research Type AC [1]
- * American Council of Learned Societies
 - China Conference Travel Grants [1]
 - Intl. Travel Grants for Humanists [1]
- * American Foundation for AIDS Research
 - Short-term Travel Fellowships RFP 687.5C [13]
 - Research [13]
- * American Lung Association
 - Paediatric Pulmonary [1]
 - Training Fellowships [1]
 - Trudeau Scholar Awards [1]
- * Arthritis Society
 - Assistantships [15]
 - Associateships [15]
 - Fellowships [15]
 - Research [15]
- * Arthritis Society: Group Grants
 - Multi-Centre, Facilitation, Development [15]
- * AUCC: International Relations
 - International Scholarships Post Doctoral [31]
- * B.C. Cancer Foundation
 - Studentships [15]
 - Travel Grant for Post-doctoral Fellows [15]
- * Cambridge Univ. (Peterhouse)
 - Research Fellowships [25]
- * Canada Mortgage and Housing Corporation
 - Research Contract [9]
- * Canadian Commonwealth Schol/Fell. Committee
 - Research Fellowships [31]
 - Visiting Fellowships [31]
- * Canadian Cystic Fibrosis Fdn.
 - Fellowships for Training and Research [1]
 - Research [1]
 - Scholarship [1]
 - Studentship [1]
- * Canadian Geriatrics Research Society
 - Research [1]
- * Canadian International Development Agency (CIDA)
 - CIDA/ICDS Institutional Development Linkages [9]
- * Cystic Fibrosis Foundation (US)
 - Clinical Fellowships [1]

- * General Motors Cancer Res. Fdn.
 - Research Prize [2]
- * Guggenheim, John Simon, Memorial Foundation
 - J.S. Guggenheim Fellowships [1]
- * Hannah Institute for the History of Medicine
 - Publication Assistance [1]
- * Health Effects Institute (US)
 - Research [24]
- * Health, Education and Welfare, U.S. Dept. of
 - NIH Grants to Foreign Institutions [1]
 - Small Grants Program [1]
- * Institute of Urban Studies, Winnipeg
 - CMHC Senior Fellowship [15]
- * International Union Against Cancer
 - Eleanor Roosevelt Cancer Fellowships [1]
- * Japan Society for the Promotion of Science
 - JSPS Fellowship for Research in Japan [1]
- * Japan World Expos. Commemor. Fund
 - International Projects [31]
- * Juvenile Diabetes Fdn. (US)
 - Career Development Award [1]
 - Postdoctoral Fellowships [1]
- * Kidney Foundation of Canada
 - National Research Fellowship Program [1]
 - Research [15]
- * Lindbergh, Charles A. Fund
 - Lindbergh Grant [15]
- * Malignant Hyperthermia Assoc.
 - Grant-in-Aid [15]
- * March of Dimes Birth Defects Fdn. (US)
 - Research [1]
- * MRC: Grants Program
 - MRC Group [1]
- * MRC: Special Programs
 - France/Canada MRC Exchange [1]
 - Research for Dyskinesia & Torticollis [1]
- * Multiple Sclerosis Society of Canada
 - Career Development Grants [1]
 - Postdoctoral Fellowships [1]
 - Research [1]
 - Research Studentships [1]
- * National Defence Canada
 - Military and Strategic Studies Program [10]
- * National Inst. of Education (US)
 - NIE Research Grants [8]
- * National Kidney Foundation (US)
 - Research Fellowships [1]
- * National Research Council of Canada
 - The Steacie Prize [3]
- * NSERC: Fellowships Division
 - University Research Fellowship [23] due in ORSIL

- * NSERC: Individual Grants
 - Individual Research (first time applicants; applicants to MRC or SSHRC) [15]
 - Major Infrastructure [1]
- * NSERC: Intl. Relations Division
 - CIDA/NSERC Research Associates: LDC's [15]
 - Exch: Braz., Czech, Jap, UK, Suisse, Ger, Austria [15]
 - International Scientific Exchange Awards [15]
- * NSERC: Major Installation
 - Major Installation [1]
- * Osgoode Society
 - Fellowship in Canadian Legal History [15]
- * Royal College of Physicians and Surgeons of Canada
 - Detweiler Clinical Traineeship [1]
- * Secretary of State: Multiculturalism
 - Canadian Ethnic Studies Fellowships [31]
 - Canadian Ethnic Studies Visiting Lectureships [31]
 - Ethnic Research [31]
- * Society for Teaching and Learning in Higher Education
 - 3M Teaching Fellowships [1]
- * SSHRC: Fellowships Division
 - Bora Laskin Fellowship in Human Rights [1]
 - Jules and Gabrielle Leger Fellowship [1]
 - Postdoctoral Fellowship [1]
- * SSHRC: Intl. Relations Div.
 - Aid to International Secretariats [1]
- * SSHRC: Research Commun. Div.
 - Aid to Learned Journals [14]
 - Aid to Occasional Conferences [30]
- * SSHRC: Research Grants Division
 - Major Research [15]
 - Research Time Stipend [15]
 - Standard Research Grants [15]
- * St. John's College, Cambridge
 - Benians Fellowship [1]
- * Supply and Services Canada
 - Project Funding: Public Awareness Program for Science and Technology [15]
- * Tyler, John and Alice, Ecology Energy Fund
 - Tyler Prize [15]
- * University of British Columbia
 - UBC-NSERC Equipment Grant [1]
 - UBC-SSHRC Travel Grant [10]
- * University of Cambridge
 - Corpus Cristi Visiting Fellowships [1]
- * Woodward's Foundation
 - Foundation Grants [1]
- * World Wildlife Fund (Canada)
 - General Research [1]

UBC Calendar

MONDAY, SEPT. 14

B.C. Cancer Research Centre Seminar
Identification of Functionally Important Monocyte Surface Molecules. Dr. Graeme Dougherty, Terry Fox Laboratory Lecture Theatre, B.C. Cancer Research Centre, 601 W10th Ave., 12 noon

Mechanical Engineering Seminar
Exploring Mars: Past, Present and Future. Dr. E.G. Hauptmann, Dept. of Mechanical Engineering, Room 1215, CEME Building, 3:30 p.m.

Germanic Studies Lecture
Die 'Indianertuemelei' in Deutschland: Karl May zum 75. Todestag. Prof. Hartmut Lutz, Universitaet Osnabrueck, Buchanan B 219, 3:30 p.m.

Implementing the Healthstyles Program
Rose Marie Fournier, Community Programmer, Douglas College Health Education Centre. Free. For information call 228-2258. Division of Preventive Medicine & Health Promotion, Room 253, James Mather Building, 5804 Fairview Crescent, 4 p.m.

TUESDAY, SEPT. 15

Chemistry Seminar
"A New General Strategy for the Synthesis of Complex Polycyclic Molecules". Prof. Pierre Deslongchamps, Dept. of Chemistry, Univ. of Sherbrooke, Chemistry Building, Room 250, 1 p.m.

Oceanography Seminar
Fish farming and its impact on the environment. Dr. R. Gowan, Dunstaffnage Marine Research Laboratory, Oban, Scotland. Room 1465, Biological Science 1:30 p.m.

Statistics Seminar
Truncated Logarithmic Series, Poisson, and Negative Binomial Distributions. Dr. Jagdish Ahuja, Oregon State University, Room 102, Ponderosa Annex C, 3:30 p.m.

WEDNESDAY, SEPT. 16

Noon-Hour Series
Paula Kiffner, cello, Rena Sharon, piano. Recital Hall, Music Building. Free admission - donation requested. 12:30 p.m.

Institute of Asian Research Seminar
Singapore's Political Leadership in the Post Lee-Kwan Yew Era. Dr. Shee Poon-Kim, Senior Lecturer, Political Science, Singapore National University. Free. Seminar Room 604, UBC Asian Centre, 12:30 p.m.

THURSDAY, SEPT. 17

Medical Grand Rounds
Towards Cure of Chronic Myelogenous Leukemia. Dr. M. Barnett, Bone Marrow Transplant Unit, VGH, Room G-279, Lecture Theatre, Acute Care Unit, Health Sciences Centre Hospital, 12:00 noon.

Institute of Asian Research Seminar
Land Tenure, Central Tax Reform and Local Dominance in Qing, South China. Prof. Edgar Wickberg, History, UBC. Free. For information call 228-2746. Seminar Room 604, Asian Centre, UBC, 4:30 p.m.

FRIDAY, SEPT. 18

Paediatrics Grand Rounds
Takayasu's Arteritis. Drs. T. Southwood, J. Buckley*, P. Malleson, Division of Paediatric Rheumatology and *Department of Radiology
B.C. Children's Hospital, G. F. Strong Auditorium, 9 a.m.

Medical Genetics Seminar
H-Y Antigen - Fact or Fiction? I: Immunology and Genetics. Dr. R. McMaster, Dr. D. Juriloff, Medical Genetics, UBC. Parentcraft Room, Main Floor, Grace Hospital, 4490 Oak St. 1 p.m.

SATURDAY, SEPT. 19

Centre for Continuing Education/Museum of Anthropology events
Mask Safari. Lecture/demonstration/exhibition/participation. Joyce Short. \$24, \$21 members of MOA. For information call 222-5254. Lower Studio, Duke Hall, Centre for Cont. Ed., 5997 Iona Drive. 10 a.m. - 2 p.m.

Academic Women's Assoc. Workshop
Professional Concerns. Profs. Margaret Prang (History), Ruth White (French), Brenda Morrison (Epidemiology) and Dr. Jane Fredeman (UBC Press). Members \$10, non-members \$20. For information call Dianne Newell (History) at 228-8477. Salon C, Faculty Club, 1-5 p.m.

MONDAY, SEPT. 21

4th Terry Fox Cancer Conference
Stem Cells and Autologous Bone Marrow Transplantation. Medicine, Div. of Hematology. Registration Fee \$100 (\$50 for trainees), Tel. 877-6070. Holiday Inn on Broadway. Starts 9 a.m., all day.

B. C. Cancer Research Centre Seminar
Activation of Protein Kinases During Meiosis and Mitosis. Dr. Steven Pelech, Biomedical Research Centre, U.B.C. Lecture Theatre, B. C. Cancer Research Centre, 601 W10th Ave., 12 noon.

Faculty Recital
Darryl Nixon, organ. Recital Hall, Music Building. Free admission. 12:30 p.m.

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Editor: Don Whiteley
Layout: Jo Moss and Linda Coe
Contributors: Jo Moss, Lorie Chortyk, David Morton, Debora Sweeney.



If you're looking for a quiet place to study this winter, avoid Main Library. The normally hushed atmosphere of the library will be disturbed for several months as workmen install a new sprinkler system to bring the building up to fire safety standards.

Institute of Asian Research Film
Japan Film Series. Free noon-hour films. Satori In The Right Cortex, 1985, 29 min; Primary and Secondary Education, 1985, 30 min. Courtesy of Japanese Consulate. Asian Centre Auditorium, 12:30 p.m.

Science for Peace Lectures
Understanding Strategic Doctrine. Prof. Michael Wallace, Political Science, UBC. Room 318, Hennings Building, 12:30 p.m.

Applied Mathematics Seminar
A Method for Solving Variable Coefficient PDE's (with examples). Dr. Brian R. Seymour, Acting Director, Institute of Applied Mathematics. Room 229, Math Building, 3:45 p.m.

Mechanical Engineering Seminar.
Time Domain Solution for Surface Waves. Johnson Chan, Graduate student. Room 1215, CEME Building, 3:30 p.m.

TUESDAY, SEPT. 22

4th Terry Fox Cancer Conference
Stem Cells and Autologous Bone Marrow Transplantation. Medicine, Div. of Hematology. Registration Fee \$100 (\$50 for trainees), Tel. 877-6070. Holiday Inn on Broadway. Starts 9 a.m., all day.

Chemistry Seminar
Palladium - Catalyzed Coupling Reactions. Prof. J.K. Stille, Dept. of Chemistry, Colorado State University, Room 250, Chemistry Building, 1:30 p.m.

Oceanography Seminar
Pretty colours and ugly data: Relationships between satellite IR images and surface plankton distributions. A Thomas, Oceanography Department, Room 1465, Biological Science, 1:30 p.m.

WEDNESDAY, SEPT. 23

Noon-Hour Series
Chuck Israels Trio, Jazz Concert. Recital Hall, Music Building 12:30 p.m. Admission free, donation requested.

Committee on Lectures/Political Science Lecture
The Civilizational Dimension of Revolutions. Prof. S.N. Eisenstadt, Sociology, Hebrew University, Jerusalem. Room A-100, Buchanan Building, 12:30 p.m.

Geophysics Seminar
Deconvolution with an Inexact Wavelet. Dr. P.K. Fullagar, Western Mining Corporation, Unley, South Australia. Room 260, Geophysics & Astronomy Building, 4 p.m.

Calendar Deadlines

For events in the period September 27 to October 10, notices must be submitted on proper Calendar forms no later than 4 p.m. on Thursday, September 17 to the Community Relations Office, 6328 Memorial Road, Room 207, Old Administration Building. For more information, call 228-3131.

NOTICES

1987 Shrum Bowl
UBC Thunderbirds take on the SFU Clansmen Sept. 12 in this football classic at Swangard stadium. Game time 7:30 p.m. Tickets \$10 and \$6 at all VTC/CBO outlets, or from UBC Athletics. For more information call 228-2531 or 228-3917.

Oldtimers Hockey
Non-contact ice hockey for faculty, staff and friends, over 50 years of age. Every Monday beginning Sept. 14. UBC Arena Main Rink. Come directly or call Lew Robinson at 224-4785. 4:45 p.m.

UBC Botanical Garden
Annual student plant sale. All proceeds go to the gardens. Main Garden Centre, 6250 Stadium Road. Parking available. Sept. 15-17. 12 noon to 5 p.m. daily.

Frederic Wood Theatre
A Doll's House by Henrik Ibsen under the direction of Charles McFarland. Sept. 16-26 except Sunday. For information call 228-2678. 8 p.m.

Faculty and Staff Exercise Class
Mondays, Tuesdays, and Thursdays; 12:30 - 1:05 p.m. Starts September 14. Robert Osborne Centre: Gym B. Instructor S. Brown. For information call 228-3966.

Computer Science Programs
Review Course for the Certificate in Computer Programming. \$225. For more information, call Vicki Ayerbe, 222-5276. Conference Room, Carr Hall, Centre for Continuing Education. 8 Wednesdays, Sept. 16 - Nov. 4, 7 - 9 p.m. and 1 Sat., Oct. 24, 9 a.m. - 1 p.m.

Computer Science Programs
Centre for Continuing Education. Getting Started with Your Macintosh: An Introduction to the Technology. Moyra Ditchfield. Fee: \$145. For information call 222-5276. Room 121, Computer Science Building, Sept. 26-27, 10 a.m. - 1 p.m.

Museum of Anthropology
The Third Eye. An exhibition featuring non-destructive scientific techniques used to yield information beyond the scope of normal methods of curatorial investigation. Until September 27.

Jane Ash Poitras: Sweatlodge Etchings (exhibit). A contemporary Cree artist from Edmonton expresses visions and supernatural images encountered in her sweatlodge experience. Until October.

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.

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

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

Tour Time at the Library
Tours of Main and Sedgewick Libraries will be given weekdays, now to September 18 at 10:30 a.m. and 12:30 p.m. Meet in the Main Library entrance. Tours last about 45 minutes. All welcome.

Exhibition of Contemporary Chinese Paintings

Prof. Lui-Sang Wong, Chairman, Chinese Art Association, U.S.A. Free admission. Sponsored by Institute of Asian Research. Asian Centre Auditorium. Now to September 20. 11:30 a.m. - 5:30 p.m. daily.

Language Programs & Services
Non-credit conversational programs in French, Spanish, Japanese, Cantonese and Mandarin begin the week of September 21. A Saturday morning class in Teaching Languages to Adults is also available. For information call 222-5227.

United Way Agency Fair
Kick-off luncheon and agency fair - see how your donations are put to work to help people. Door prizes, entertainment and luncheon with an international flavor. Wednesday, Sept. 23, 11 AM - 2:30 PM. Tickets \$10. Vancouver Trade and Convention Centre, Canada Place. For more information call 731-7781.

Centre for Continuing Education
Lecture and garden tour. Classical Chinese Garden. Jeannette Leduc, Fri-Sat., Sept. 25-28. Admission \$20. For information call 222-5254. Fri.; Conference Room, Carr Hall Centre for Continuing Ed. 7 - 9 p.m. Sat.; Dr. Sun Yat-Sen Classical Chinese Garden, 578 Carrall St. 10 - 11 a.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.

UBC Access
The new issue of the Guided Independent Study calendar supplement 1987/1988 is now available. Please call 224-3214 or drop by Room 324, Library Processing Centre.

English Conversation Class
A variety of music, stories and films - free. International House, Upper Lounge. Monday evenings, 7:30 p.m. For further information call 228-5021.

Infant Care at UBC
The UBC child care office is now offering care for infants up to 18 months of age, initially for nine babies with a plan for 12 in January, 1988. Call 228-5343 for more information.

Computing Centre non-credit Courses
The Computing Centre is offering a series of free non-credit courses September, October and November. A complete list of courses is available by calling 228-6611, or you can pick up a schedule from the computing Centre general office (CSCI 420).

THE VANCOUVER INSTITUTE

Saturday, Sept. 26
Sex, spies and secrets. Dr. Peter North, Principal, Jesus College, Oxford University, England.

Saturday, Oct. 3
Excavations at Olympia. Prof. Helmut Kyrieleis, Director, German Archaeological Institute, Athens, Greece.

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

