

UBC REPORTS

Volume 42, Number 14

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Science First! series ready to ignite students' curiosity

Lee Gass is revving himself up for a lunch date with science students this fall.

"I'm going to get those students to understand some things about how science operates and what science is as a human endeavour," he says. "I'm going to get them to know in their bones that any creative process starts from a profound appreciation of our ignorance and a willingness to articulate what that is."

The zoology professor launches a Science First! on Sept. 19. The series will have professors talking informally about their research, why they became scientists and what science means to them.

Gass's Thursday chat, titled *Where's the Science in Science Education*, starts at 1 p.m. and is the first of six noon-hour lectures planned for the Fall term in Lecture Hall 2 of the Instructional Resources Centre.

Associate Dean of Science Juliet Benbasat says the series is part of a concerted effort in the faculty to get students, particularly those in first year, to rethink what it is about science that excites them most. Benbasat believes the series will stimulate students' appreciation for the breadth of science and give them more of an awareness of the many options available at UBC, whether their interests lie in a research career or in professional or applied fields.

While attendance at the Science First! seminars is not compulsory, Benbasat

hopes students will want to invest some of their own time learning, asking questions and broadening their vision of science.

Says Benbasat: "We're all putting more emphasis on enhancing the life skills of students and getting them to learn science for science's sake rather than memorizing specific details which will, in many cases, be outdated in a few years."

For the past 15 months, a 28-member committee of science professors, students and alumni have been working on a new vision for the faculty. Their work was released in a comprehensive Strategic Planning Report, a large part of which focuses on initiatives to enhance student learning and their ability to link knowledge and ideas from various disciplines to solve a problem.

The report's introduction states: "the jobs that are being created depend increasingly on skills such as communication and integration of ideas - skills that have not been the focus of teaching in the Faculty of Science in the past."

The faculty is refocusing its teaching efforts on many fronts.

Benbasat sees the lunch-time seminar series as a precursor to many of the initiatives listed in the report. She also points to the introduction of a Co-ordinated Science Option for 100 first-year students as another faculty development this term aimed at fostering student creativity and critical thinking.

See **SCIENCE** Page 4

Nursing faculty start pregnancy resource

by Stephen Forgacs

Staff writer

A new pregnancy drop-in clinic has been established at UBC to provide support and information to women in the Vancouver area who are pregnant or are contemplating pregnancy.

The Centering Pregnancy Drop-In was started in May by three faculty members from the School of Nursing, in conjunction with the Vancouver Health Board and West Main Health Unit.

"Many women in the UBC area, particularly students or the partners of students, are here from out of province or out of country and are away from their traditional support system of friends and family," said Marion Clauson, a clinical assistant professor of nursing at UBC.

"And during pregnancy people tend to rely to a certain extent on that support system for information, advice or reassurance. We established the drop-in to meet the need for support, and to bring women together to establish their own support network."

Clauson said the free drop-in is aimed at the residents of the Acadia and Fairview student housing developments and surrounding community, but is open to anyone. The drop-in also provides nursing students with experience in working with

expectant mothers.

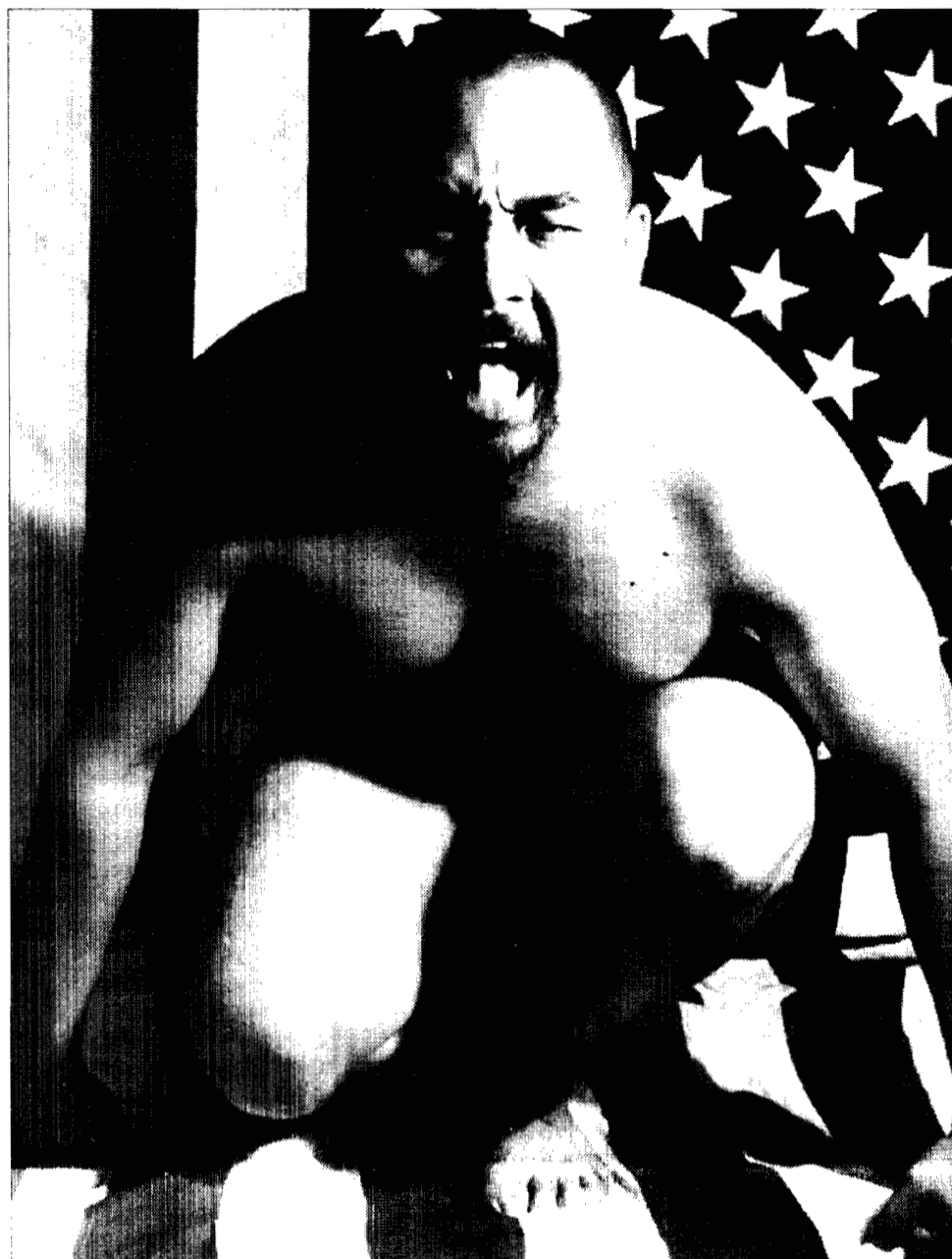
"When we decided to start the drop-in, we considered both the need for support in the area and possibility of enhancing opportunities for faculty practice and student clinical experience."

Clauson, Assoc. Prof. Elaine Carty and Clinical Assistant Cathy Ebbehoj bring a lot of experience to the clinic. Clauson and Ebbehoj have particular expertise in the childbearing period with an emphasis on prenatal education and prenatal care. Clauson has expertise in high-risk pregnancy and nursing care in labour. Carty's research interests include early maternity discharge, transition to parenthood and childbearing and parenting with disabilities. She is recognized as an expert in the area of childbearing families and also works as a consultant with community and hospital health care professionals. Ebbehoj works closely with postpartum families in the hospital and community.

All three do clinical teaching with undergraduate nursing students and are involved in supervising students in hospitals and in the community.

While doing the maternity component of their studies, fourth-year nursing students are required to follow the progress of a pregnant woman through the later part of pregnancy and childbirth.

See **PREGNANCY** Page 2



Teri Snelgrove photo

A Lie Of The Mind

Sam Shepard's *A Lie of the Mind* launches the 1996/97 season at the Frederic Wood Theatre for a limited engagement Sept. 18 to 28. Raugauhaan Yu, featured as Jake, expresses anger about the violent acts that occur in human relationships in Shepard's modern classic about the dysfunctional American family. Show time is 8 p.m. Call 822-2678 for ticket information and reservations.

UBC faculty awarded 3M teaching fellowships

Two UBC faculty members are among this year's recipients of the coveted 3M Teaching Fellowships.

Associate Professor of Nursing, Clarissa Green, and Dr. William Schreiber, an associate professor of Pathology and Laboratory Medicine, were among 10 educators selected from 64 nominees at 28 Canadian universities to receive the award.

Green, whose past honours include the Award for Excellence in Nursing Education from the Registered Nurses Association of B.C. and the UBC University Teaching Prize, was cited for her exemplary teaching skills, optimizing learning opportunities for her students and fostering their independence and the capacity for life-long learning.

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Letters

LETTERS POLICY

UBC Reports welcomes letters to the editor on topics relevant to the university community. Letters must be signed and include an address and phone number for verification. Please limit letters, which may be edited for length, style and clarity, to 300 words. Deadline is 10 days before publication date. Submit letters in person or by mail to the UBC Public Affairs Office, 310 - 6251 Cecil Green Park Road, Vancouver B.C., V6T 1Z1, by fax to 822-2684 or by e-mail to janet.ansell@ubc.ca.

Policy doesn't make grade

Editor:

Re: Revised Policy #3: Discrimination and Harassment.

Upon reading this document, I was acutely embarrassed by: 1) its failure to abide by the commonly held precepts of justice in the Canadian judicial systems; and 2) its seemingly contradictory statements or lack of conceptual integration. If I was a member of a street gang or vigilante group, such a document might be acceptable. However, I am not; rather I am a member of a community that supposedly represents and fosters the better aspects of Western civilization such as justice, fairness and due process. Before continuing I would like to state that if "discriminating or harassing behaviours" do occur at UBC,

they should not be tolerated and dealt with expeditiously but fairly. My complaint is simply that this document does not meet such criteria.

First, the document does not define what constitutes "proof" of improper behavior. Rather, a convoluted bureaucratic structure for resolution is described without reference to proof. Although an underlying tenet of common law is that one is innocent until proven guilty, this tenet is completely ignored. Moreover, the only reference to proof of innocence/guilt is found in section 77 which states in part: "Anyone who enters into a sexual relationship with a person where a professional power differential exists must realise that, if a charge of sexual harassment is subsequently lodged, it will be extremely difficult to defend the conduct on grounds of mutual consent." This statement highlights the inherent problems with the document in

three ways. First, it suggests that the burden of proof lies with the defendant, not the accuser. This position is not consistent with recognized judicial practice. Second, as the public courts recognize mutual consent between two adults as the underlying premise for normal sexual relationships, the university's position is contrary to Canadian law. Third, this section (i.e., 77) appears to contradict section 76 where such sexual relationships are acceptable if the relationship is disclosed to the administrative head.

Although there are many other flaws in this document, the above should highlight some of its shortcomings. In conclusion, I would like to remind the university administration that Kafka wrote *The Trial* as satire, not as a procedure manual.

Campbell M. Clark, PhD
Associate Professor
Dept. of Psychiatry

GSS president crushes rumour

Editor:

Recent events in the Graduate Student Centre have attracted a great deal of attention and speculation. Unfortunately, given that discussions with the Society's former Food and Beverage Manager, Dale Read, are ongoing, Council and the Executive Committee have been unable to release detailed

information pertaining to Council's decision to end Mr. Read's employment on June 25, 1996. While the specific reasons for the dismissal of Dale Read have not been disclosed, much speculation has occurred.

Among the rumours currently circulating on campus are some that cast suspicion upon the staff of Koerner's, the Society's Pub. Pub staff have expressed, and rightly so, their anxiety, frustration and anger regarding these rumours. In

order to allay staff concerns, as well as check damaging and irresponsible rumours, the Executive Committee states unequivocally that no staff member employed in its Food and Beverage operations is under suspicion of any wrongdoing whatsoever.

The Executive Committee requests that all parties work together to avoid such harmful speculation in the future.

Kevin Dwyer
GSS President

Peter Larkin will be missed

Editor:

Today I was dismayed to discover that Dr. Peter Larkin had passed away. To me, Peter Larkin was a wise and caring man in a society that too often moved forward without fully considering all the facts.

I first met Peter when I was

a member on the Community Advisory Committee to the proposed UBC Incinerator of which he was chair. Working with Peter on this committee gave me a true appreciation of the definition of busy. In addition to our committee, and his many projects for the Royal Society of Canada, Peter was also studying the case of the missing salmon from the 1992 Fraser River sockeye run.

Perhaps it would be incor-

rect to say that he changed my mind on the subject of incinerators, but his wisdom helped me to consider that there are always more sides to a situation than may be initially apparent.

Today is a sad day. UBC has lost an outstanding individual who will be sorely missed.

Mary Jean O'Donnell
Waste Reduction Coordinator, UBC

Pregnancy

Continued from Page 1

Clauson said they decided to establish the drop-in after determining from community health nurses who work in the area that there were a sufficient number of births to merit the service. A breast-feeding drop-in service established last year along similar lines has been well used by families in the area.

"We felt that women who might be somewhat isolated out here on campus without the strong family network behind them might be more inclined to come to something like this rather than the more formalized, traditional pre-natal classes," Clauson said.

"Some of the people coming to us are women who have had a child before and are not attend-

ing pre-natal classes but still have concerns, or women for whom English is not the first language and may not feel comfortable in a fast-paced pre-natal class."

The drop-in sessions are informal, always attended by at least one faculty member and usually one or two students. Clauson said the nurses will answer questions and provide support if needed, but that the drop-in will ideally be shaped by the needs of the women who attend.

"Women who come back on a repeated basis will be able to form a support network among themselves. We anticipate that it will become more of a group discussion rather than something we have to direct. One-on-

one will always be available but we're hoping that the women will want to talk with each other and learn from each other," Clauson said.

"We're not suggesting that we know what the women need. We are prepared to find out what they want from us and then see how we can meet their needs individually."

The drop-in is held every Wednesday from 10 a.m. to 11:30 a.m. in the Fireside Lounge of the Acadia Fairview Commons Block at 2707 Tennis Crescent.

Clauson said an evening drop-in is being considered to accommodate women who can't attend the daytime drop-ins, and to allow couples to attend together. For further information call 822-7470.

Your UBC

A series of forums designed to hear your thoughts and address your concerns.

We want your feedback -- Come out and join us.

Sept. 11 - Forum 1: Financial Aid and Student Employment

Moderator: Maria Klawe
VP, Student and Academic Services
SUB Conversation Pit
12:30 p.m. - 2:00 p.m.

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UBC REPORTS

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Earth, ocean merger boosts collaboration

On April 1 of this year, geophysicist Robert Ellis officially became head of UBC's newest academic amalgam - the Dept. of Earth and Ocean Sciences.

Though the department's creation has been in the works for six years, the scientific merger of geology, geophysics and oceanography has been a process underway since the Second World War.

"There has been a gradual convergence due to the complexity of problems in earth and ocean sciences, problems which can best be solved through close collaboration among experts from a number of subdisciplines within the broad field," says Ellis. "There is no doubt that it is the needs of the science and a contemporary teaching program in the science that has brought us together."

The new department is born out of the former departments of Geological Sciences, Oceanography and the geophysics group from the Dept. of Geophysics and Astronomy.

Ellis, trained in mathematics and physics, has been contributing to advances in solid earth geophysics during the last 30 years by studying the structure and movement of the North American lithosphere - one of the major pieces (tectonic plates) of the earth's outer shell. Ellis applies the techniques of both explosion and earthquake seismology in his studies, a number of which have focused on plate interactions on the West Coast that are the cause of earthquakes.

Strong evidence for plate tectonics was gathered through exploration of ocean basins during the 1950s and 1960s and the continuing advances in earthquake seismology, seafloor mapping, geochronology and other earth and ocean sciences subdisciplines. Mining and hydrocarbon exploration forged closer ties between geologists and geophysicists as deposits became increasingly hard to find. Pollution and global change studies have also drawn together earth and

atmospheric scientists as well as oceanographers (biological, chemical, geological and physical) to study the complex interactions.

In terms of the new department, Ellis' short-term challenge is to instil a sense of cohesion among 40 faculty, 25 post-doctoral students, 23 staff and 120 undergraduates.

A new building to house the group is promised and plans for its development are underway. However, for the next few years at least the department will operate out of four buildings on campus: geological sciences, geophysics/astronomy, biological sciences and the bookstore annex. It is anticipated that oceanographers currently in the annex will eventually inherit space in the geophysics/astronomy building vacated by the astronomy group. Ellis jokingly points out that faculty members need an extra line on their business cards designating their respective buildings to ensure proper mail delivery.

"In everything else, we are the Dept. of Earth and Ocean Sciences - end of discussion."

Once administrative matters are in order, his next order of business is to review and rationalize academic programs to ensure that students receive the breadth and depth of education in earth and ocean sciences that the contemporary job market demands.

Says Ellis: "This new, integrated way of looking at the earth will of course manifest itself in the breadth and depth of education we offer to students."

Since the process of introducing a course or program takes about two years to work its way through the system, students won't be graduating from new programs until at least the year 2000.

Additional collaborative research activities are expected to emerge through the interaction of faculty previously in different departments and the increasingly multidisciplinary nature of research problems.



Ellis



D. Thomson photo

Fledgling T-Birds?

Basketball enthusiasts in UBC's 11th UBC/Nike Thunderbird basketball camp keep an eye on the coach and a hand on the ball. Close to 230 boys and girls aged nine to 18 took part in the five-day camp at War Memorial Gym in August. T-Bird coaches Bruce Enns and Debbie Huband and several T-Bird players worked on the young athletes' skills.

Geers garner awards for design solutions

by Stephen Forgacs

Staff writer

Medical devices designed by UBC engineering students took the top two prizes in the medical device category of the recent 96 Solutions+ student design competition.

Two UBC student teams designed devices that enable doctors to take accurate measurements of the range of movement in the shoulder joint and of the range of movement and muscle resistance in the eye.

"An important consideration in the selection of the design projects was that the devices enable doctors to determine whether or not surgery is required in a particular case," said Ian McDougall, a fourth-year mechanical engineering co-op student who was a member of both teams.

The competition is held annually in B.C. and was sponsored this year by the B.C. Science Council. Prizes are awarded in seven categories related to health sciences and assistive devices.

First prize in the medical devices category was awarded to a four-student team for its design of a Modified Forced Duction Apparatus (MFDA) to measure muscle resistance and range of movement in the eye. The design team included McDougall, Patrick McCrea (engineering physics), Parsa Pirseyedi (mechanical engineering), and Lauren Walker (engineering physics).

The design of the hand-held device comprises a four-inch shaft with a small suction cup at the end to attach to the cornea. Strain gauges located in the shaft register the forces applied to move the shaft up or down or to either side. Also housed in the shaft is an ultrasonic transducer that records the motions of the eyeball.

The device was designed to help determine the sort of treatment appropriate for a particular eye condition called strabismus, or lazy eye, that involves a gradual deterioration of the eye muscles and affects the range of movement. The present method of determining the degree of muscle resistance and range of movement involves using forceps to hold the eye, and estimating resistance while moving it back and forth.

The other device, for which McDougall and fellow mechanical engineering student Brent King won second prize in the medical devices category, was designed to allow doctors to gain a better idea of the

extent of a shoulder joint injury by isolating and accurately measuring the rotations around the axis of the upper arm.

The device for "characterizing humeral orientation" features an L-shaped bracket into which a patient's arm is secured with wide bands across the upper arm and forearm. A powerful magnet in the base is used to hold the device to a stainless steel examining table on which the patient is reclining.

"The device, when used with a measure of pain signals from the patient, will allow doctors to gain very accurate readings of the range of motion in the shoulder joint without overloading it," McDougall said.

The device will allow doctors to gather data in a consistent manner which will aid comparisons between patients. The present system used to determine the extent of a shoulder joint injury is relatively subjective, because it relies on the physician's estimate of both range of motion and pain experienced, McDougall said.

Both devices were designed in response to the express needs of medical professionals, McDougall said. The MFDA was designed in consultation with the Biomedical Engineering Dept. at Vancouver Hospital and doctors from the Eye Care Centre at Vancouver Hospital and Health Sciences Centre and the Dept. of Ophthalmology at B.C.'s Children's Hospital. The shoulder device was designed in consultation with Western Clinical Engineering Services.

The students also worked closely with Prof. Antony Hodgson, who participated in both projects, and Prof. Doug Romily, who was involved with the MFDA project.

Since claiming the prize in the 96 Solutions+ competition, Hodgson, King and McDougall have been selected as finalists in an international student design competition, sponsored by the Institute of Electrical and Electronics Engineers (IEEE) and Engineering in Medicine and Biology Society. They will present the shoulder device at the IEEE's conference in Amsterdam in next month.



McDougall with shoulder device.



Safety features

Enhancing personal safety

Sex, dating and all that jazz

Among the most valuable lessons new and returning students can learn this year is how to enhance their personal safety on campus.

"Awareness through education is essential to everyone's security," says Tamalyn Hossack, a fourth-year Arts student and co-ordinator of the Women Students' Office (WSO) Safer Campus Peer Education Program.

Beginning this month, Hossack and a team of peer educators will offer workshops aimed at providing students with up-to-date information on personal security issues at UBC.

Sex, Dating and All That Jazz introduces students to the issue of acquaintance sexual assault and the roles that communication, personal power and autonomy play within intimate relationships.

Campus peer educators are students who have been trained as group facilitators. This is the third year that the workshops, funded by the Teaching and Learning Enhancement Fund, are being offered.

"The workshops are designed to raise awareness of the problems associated with safety in both public places on campus, such as the library and bus loop, and private settings in personal relationships," Hossack says.

Creating a Safer Campus focuses on resources and programs at UBC which help students reduce risks and maintain personal security. The interactive workshop encourages participants to identify options and solutions to personal security scenarios.

"The workshops allow participants to express their thoughts in a non-judgmental setting and offer a diversity of viewpoints," Hossack says. "People often leave with new perspectives."

Each 90-minute workshop can accommodate up to 20 participants and both are available to campus groups, clubs and residences upon request. Interested individuals may register with the WSO and will be contacted about dates and times.

For more information, please call the WSO at 822-2415.

Teaching

Continued from Page 1

She was also commended for helping others improve their teaching through her involvement with UBC's Centre for Faculty Development and Instructional Services.

Schreiber, a member of the committee developing new curriculum for the Faculty of Medicine, now chairs a committee

involved in its implementation. In 1994, he received the UBC University Teaching Prize. He was honoured by 3M for his enthusiasm, eagerness and exceptionally high ratings for his teaching expertise by medical students, residents and faculty colleagues.



Green

recognizes individuals who excel in teaching and demonstrate an exceptionally high degree of leadership and commitment to the improvement of university teaching across disciplines.

The award is sponsored by 3M Canada Inc. and the Society for Teaching and Learning in Higher Education.



Schreiber

Science

Continued from Page 1


Modelled after the Science One program, the pilot project will have one section of students going through their core science classes - biology, physics, chemistry and mathematics - together. Professors teaching this section will work as a team to highlight the interplay between the different disciplines.

"The idea is that by sticking together, the students will live and breathe science inside and outside the classroom," says Benbasat.

Gass, a founder and teacher in the three-year-old Science One program, says introducing the integrated concept into the mainstream science curriculum can't help but produce positive results.

"Students come boiling out of Science One and are causing a ruckus in their other classes because they hear something and their hand goes up," says Gass. "Once students get their curiosity tweaked and start making connections, they take off like a rocket."

The schedule for Science First! seminars is as follows: Paul LeBlond, Oct. 3; Prof. Lorne Whitehead, Oct. 17; Prof. Marie Klawe, Oct. 31; Asst. Prof. Jaymie Matthews, Nov. 14; and Assoc. Prof. Rosemary Knight, Nov. 28.



The UBC Writing Centre offers non-credit courses emphasizing English writing for academic, technical and research purposes. Registrants must be at least 18 years of age. All classes are held on the UBC campus.

<p>Writing 097: Intermediate Composition Focuses on the basics of grammar and composition to strengthen the writing skills of students with English as an additional language who intend to study at a Canadian university. <i>Wednesdays, September 18-December 4, 7-10 pm. \$245.</i></p> <p>Writing 099: Advanced Composition Enables students who have achieved a high level 4 or a level 5 on the LPI to sharpen their skills in rhetorical analysis and composition before entering university-level English courses. <i>Wednesdays, September 18-December 4, 7-10 pm. \$245.</i></p> <p>Effective Essay Writing Introduces the terminology and methods used to analyze several literary genres: short stories, novels, poetry and drama. <i>Wednesdays, September 18-December 4, 7-10 pm. \$245.</i></p>	<p>Writing 098: Preparation for University Writing and the LPI Assists participants in developing the language and composition skills required by credit courses. The course also prepares students to write the Language Proficiency Index (LPI) examination. <i>Wednesdays, September 18-December 4, 7-10 pm, or</i> <i>Saturdays, September 14-November 30, 9:30 am-12:30 pm. \$245/section.</i></p> <p>Report and Business Writing Assists participants in developing effective business writing practices while brushing up on the basics of grammar and composition. <i>Wednesdays, September 18-December 4, 7-10 pm. \$245.</i></p> <p>Thesis Writing Offers guidance to graduate students in the humanities regarding the organization, documentation and style of their theses. <i>Wednesdays, September 18-December 4, 7-10 pm. \$245.</i></p>
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Information: 822-9564

UBC DEVELOPMENT APPLICATIONS

Students, faculty, staff and members of the public—**Does this affect you?** The following projects for the UBC Campus are currently being considered. You are encouraged to give us your opinions on these projects:

- PLANS & PERMIT REVIEWS IN PROGRESS**
- new** • Official Community Plan for part of Electoral Area 'A' July, 1996
- new** • Gage Tower rooftop antennae for cellular phones
- hold** • Liu Centre for International Studies—Phase I
- hold** • Centre for Continuing Studies—Phase I
- hold** • St. John's College—Phases 2 & 3
- hold** • Creative Arts—Phase 2

& FOR YOUR INFORMATION...

- Permit Fees—All UBC Development & Building Permit fees have changed effective April 1, 1996
- Environmental Assessment for TRIUMF-ISAC Project is available for review

FOR MORE INFORMATION ON ANY OF THESE PROJECTS please contact BONNIE PERRY AT 822-8228, perry@cpd.ubc.ca or visit our Campus Planning & Development Home Page on the Internet at <http://www.cpd.ubc.ca/cpdhome/cpdhmpg.htm>

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Open House

Official Community Plan for UBC

The Greater Vancouver Regional District invites you to an open house on a proposed Official Community Plan (OCP) for the part of Electoral Area 'A' that includes the University of British Columbia and a foreshore area of Pacific Spirit Regional Park.

We would like to hear your views and ideas.

Thursday, September 12, 1996
4 p.m. to 8 p.m.
Asian Centre,
#607 - 1871 West Mall
UBC Campus

Directions: By car, turn in from N.W. Marine Drive at Gate 4 (across from the Museum of Anthropology) on the UBC Campus. On foot from the Bus Loop, go right onto East Mall then left onto Memorial Road. The Asian Centre is behind the Choi building on West Mall, near the Fraser River Parkade.

Please note, there will be a Public Hearing on Tuesday, October 15, 1996 at 7:30 p.m. in the UBC Hebb Theatre.

For further information, please contact GVRD Strategic Planning at 432-6343.



THE UNIVERSITY OF BRITISH COLUMBIA

HEALTH, SAFETY AND ENVIRONMENT— OCCUPATIONAL HEALTH AND WORKPLACE SAFETY ANNUAL REPORT 1995

Key Accomplishments

- The accident rate decreased by 13% from the previous year, with 372 accidents reported.
- The total cost of WCB claims dropped from \$1,110,642 in 1994 to \$637,189 in 1995, a decrease of 43%.
- A Generic Safety Program Manual was produced and distributed to Local Safety Committees by Safety Committee Liaisons providing the Committees with a valuable tool to enhance their departmental programs.
- A proactive approach was implemented to bring injured or disabled workers back to work through early intervention, graduated return to work, modifying job duties, and introducing adaptive devices to assist the worker. This initiative has resulted in an accelerated return to work for over 40 staff members.
- The Asbestos Management Program completed the second of a three year term. All major sources of asbestos have been identified and worker exposure is being effectively controlled. Ahead of schedule and below budgeted costs, over 4 million square feet of our building survey has been completed.
- The department delivered training courses to a total of 1534 faculty, staff and students during 1995 increasing safety awareness and effectively contributing to the reduction in accidents in 1995.
- The number of divers registered in the Diving Safety program doubled in 1995.
- The University's 649 radioisotope laboratories were monitored in accordance with the Atomic Energy Control Board of Canada requirements achieving a record of minimal personal radiation exposures.
- A database was created to track all incident/accident reports received from 1995 onwards, providing a valuable tool for department heads and administrators to identify high risk activities and implement accident control measures.
- There was an increase of 14% in the number of biosafety cabinets and fume hoods tested for University hospitals and laboratories as well as external clients during 1995.
- The WHMIS compliance initiative required by WCB regulations corrected labels on 27,000 chemical containers in over 150 laboratories. This major WHMIS project met our compliance plan requirements while providing valuable work experience opportunities for UBC students.
- A Confined Space Training course, a joint project with Plant Operations and in compliance with WCB regulations, was initiated in 1995.
- Safety awareness was promoted on campus through the department's participation in the University Open House and the development of a Home Page on the World Wide Web.

University Policy on Safety

The University aims to provide a safe, healthy and secure environment in which to carry on the University's affairs. All possible preventative measures are taken to eliminate accidental injuries, occupational diseases and risks to personal security. Compliance with the Workers' Compensation Act, WHMIS and related legislation is the minimum standard acceptable. All students and members of faculty and staff are encouraged to strive to exceed these minimum legal standards and to eliminate unnecessary risks.

The University Safety Policy mandates our department to "assist departments to implement and maintain effective health, safety and personal security programs, liaise with regulatory authorities on behalf of the University and support the activities of the University's Safety Committees."

Safety Programs at UBC

In keeping with the University Policy on Safety, the department strives to lead in the development and implementation of health and safety programs for the University community. This includes extensive training programs, safety program evaluations and assisting the University community in surpassing all regulatory standards for good health and safety practices. The department works closely with six standing University committees which make recommendations on issues regarding occupational health and safety. There are seven different program areas included in the area of occupation health and safety: Biosafety, Chemical Safety, Diving Safety, Radiation Protection, Asbestos Control, and Workers' Compensation Claims Administration.

Overview of Current Services and Ongoing Programs

Safety Committees

The WCB, in conjunction with representatives from this department (HSE) and the University Health and Safety Committee (UHSC), completed an audit of UBC's Safety Committee system in 1994. In response to the WCB's final report of this audit, the Safety Program Audit Sub-Committee of the University Health and Safety Committee met regularly in 1995. With the assistance of two HSE officers, this sub-committee completed the following projects in response to the audit findings:

- A copy of a Generic Safety Program Manual for every local safety committee to be distributed by safety committee liaisons from HSE. Included in the binder, especially designed for each departmental safety committee, are also the Terms of Reference, suggested safety committee meeting format, a section for site-specific policies and procedures including a Fire Plan. The manual will provide guidance to improve the committees' effectiveness and ensure compliance with regulations. The viability of the University's internal responsibility system for safety is predicated on the effective operation of Local Safety Committees.

- A brochure describing safety programs, and providing information to new employees on how to deal with safety issues was developed. A chart that briefly defines the recommended procedures for following up on safety concerns has been included in this brochure. Mass distribution will take place in 1996.
- The department's initiative of assigning a HSE person to each of the University's local safety committees has been aggressively pursued in 1995. Sixty-one percent (61%) of the local safety committees received at least one visit in the course of the year. During 1995, the liaisons assisted the local safety committee members with their issues and concerns; offered advice and assistance with investigations; and assisted in the formation of 5 new safety committees.

Research Support

The department supports the research mission of the University by facilitating the grant application process, providing training, certifying equipment, and responding to inquiries for technical advice on safety issues. The department is involved in managing the hazards associated with the University's research activities including radioisotope and radiation hazards, biohazards, chemical toxicity, fire risks and research diving hazards. The department assists advisory committees in licensing, certifying, and training activities to ensure that University researchers meet the requirements of granting agencies. These services facilitate over \$120 million in research activities by protecting workers and maintaining regulatory compliance.

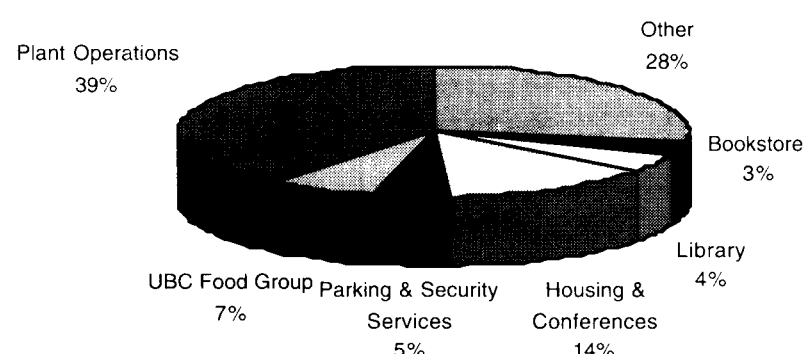
WCB Claims Administration

WCB Claims Administration program provides services to employees of the University who are injured or disabled while at work. Initiating and monitoring WCB benefit claims, facilitating return to work and representing the University during the appeal process are the major responsibilities of this area. The primary goal of the program is to assist injured workers in returning to work in a safe and timely manner. The following chart shows a 5 year comparison of the number of accident reports, number of work days lost and average costs per claim:

	1995	1994	1993	1992	1991
Number of Accidents Reported					
Involving Wage Loss & Medical Costs	209	281	249	193	202
Involving Medical Costs only	163	143	154	178	150
TOTAL	372	424	403	371	352
Comparison of Work Days Lost					
Number of Days Lost	6,114	6,756	6,468	2,594	2,806
Wage Compensation (\$)	459,321	525,613	532,398	198,802	222,892
Medical CostsM (\$)	166,962	206,015	183,055	91,033	102,761
Pay Outs & Reserves (\$)	10,906	379,014	195,520	36,628	267,797
TOTAL (\$)	637,189	1,110,642	910,974	326,464	593,452
Averages per Claim					
Days Lost	29.25	24.04	25.98	13.44	13.89
Wage Compensation (\$)	2,198	1,871	2,138	1,303	1,103
Medical Costs (\$)	449	733	454	245	291
TOTAL (\$)	2,647	2,604	2,592	1,548	1,395

In 1995, the number of accidents decreased for the first time in five years, a drop of 13% from the previous year, with 372 accidents reported. This is a significant decrease, as the number of accidents had increased over the previous four years. The ratio of accidents by type of injury and by department has remained fairly constant.

1995 Total Accidents by Department



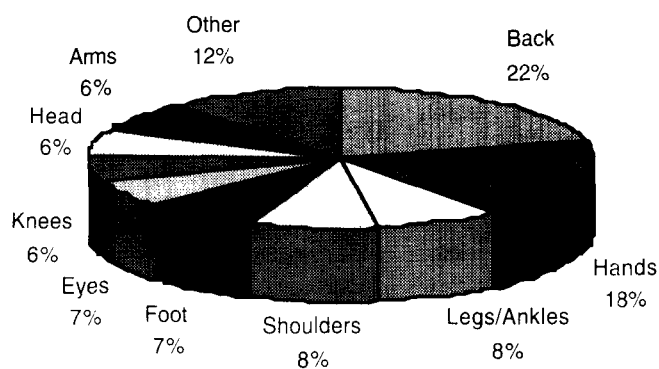
Plant Operations, Housing and Conferences, UBC Food Group, Parking and Security Services, the Library and the UBC Bookstore had 72% of all accidents. These numbers have not varied considerably compared with previous years. The Plant Operations Custodial Safety Committee has worked in conjunction with this department to implement changes in the recycling division which will decrease the amount of lifting. Carts with wheels will be replacing recycling bags and the carts will be mechanically lifted for disposal. It is anticipated that this will affect a significant reduction in back injuries for this group.



THE UNIVERSITY OF BRITISH COLUMBIA

OCCUPATIONAL HEALTH AND WORKPLACE SAFETY ANNUAL REPORT 1995

1995 Accidents by Injury



The total cost of WCB claims dropped from \$1,110,642 in 1994 to \$637,189 in 1995. The cost of funding the pension payments to partially disabled workers declined by \$370,000. A further saving of \$105,000 was realized in 1995 WCB wage loss and medical expense costs. These reduced charges will be reflected in reduced WCB premiums to the University in 1997.

Six training sessions were held in 1995 with the departments identified as having the highest number of accidents, including Plant Operations, Parking and Security Services, UBC Food Group, UBC Bookstore, and Housing and Conferences. Presentations stressed the importance of accident/incident reporting and outlined the role of the individual worker, the supervisor, department and Health, Safety and Environment in completing these reports.

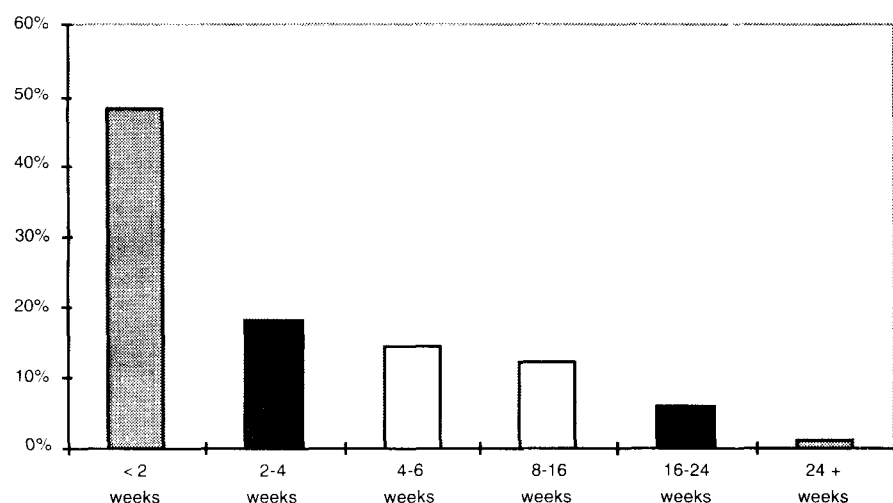
To supplement our WCB database, a new database was developed to track all incident/accident reports received from 1995 onwards. All reports received are input into a database with the capability to produce monthly statements of incidents/accidents for department heads and safety committees. This database includes reports of incident/accidents involving students and visitors as well as faculty and staff. The reports provide a valuable tool for management and safety committees in identifying high risk activities and implementing controls which will result in decreased accident rates for the University.

Introduction of Case Management Strategy

The focus in handling WCB claims was changed in 1995 to a more interactive approach with increased communication between the injured worker, the physician, the employee association or union, the WCB, rehabilitation therapists and the worker's department. By becoming more involved in the decision making process, this department is encouraging a safe and timely return to work. Assistance is provided to the injured worker by liaising with the WCB in expediting the claims adjudication process.

As indicated in the chart below, nearly 50% of all workers who have time loss accidents return to work within two weeks and over 80% of all workers return within six weeks. Through a combination of return to work initiatives and job accommodation strategies, our Department's objective is that 80% of all workers will return to work within two weeks by 1997.

Percentage Claims by Time Loss from Work



Returning the injured or disabled worker to their pre-injury position is the primary goal of case management. If the worker is not able to resume full duties, job accommodation is attempted. This involves communication between this department, the injured worker and his/her supervisor. Job accommodations can include a graduated return to work, temporarily modifying the job duties of the regular position, assigning alternative duties for a pre-determined rehabilitation period, or introducing adaptive devices to assist the worker in completing necessary job tasks, such as a mechanical lift or ergonomically designed keyboards.

In 1995 over 40 successful job accommodations were made. The most successful accommodations were a combination of graduated return to work with a temporary modification of duties. By making the necessary job accommodations and working to assist the injured or disabled employee back to work, the University has reinforced its role in disability management. BC Human Rights legislation prohibits discrimina-

tion in employment based on physical or mental disability. Recent case law has reinforced the responsibilities of both the Employer and Unions/Associations to make the necessary accommodations, up to the point of undue hardship. The department of Health, Safety and Environment has been working closely with Human Resources and the Equity Office to ensure that departments are provided with the necessary assistance to meet these legal obligations.

Health & Safety Services

The department conducts hearing tests for noise exposed workers, first aid training and fire extinguisher training. Monitoring equipment available for quantitative evaluation of workplace risk includes confined space entry meters, light and sound level meters, air sampling equipment, air flow meters, and a liquid scintillation counter.

HSE has been involved in the investigation of incidents where workers have reported pain or injury due to ergonomic factors of repetitive motion, awkward work postures, and high forces and stresses. Investigations of work stations and daily activities have been conducted to determine if any ergonomic factors have contributed to their injuries. Most of this activity involves the Video Display Terminal work stations. The department has conducted workplace assessments and provided advice on the usage of corrective equipment such as wrist rests and lumbar supports. Such equipment is made available on a loan basis to determine if modifications to the workstation will be useful in reducing ergonomic injuries. This has enabled workers to remain on the job and avoid time loss.

The department is working with those departments exhibiting a high risk of back injuries in an effort to reduce the incidence of injuries. For example, changes are being implemented in the Plant Operations Custodial recycling division which will decrease the amount of heavy lifting for which the custodial staff are responsible. By replacing the recycling bags with wheeled carts which are mechanically lifted the incidence of back injuries among these workers is expected to be significantly reduced.

Due to the identification of several problems with the existing procedure for working on roofs where laboratory fume hoods discharge, a committee was formed representing trades and the hood users under the umbrella of the University Health and Safety Committee. This roof top entry committee, chaired by the Occupational Hygiene Officer, identified three main areas of concern:

- problems with the existing procedures;
- the state of repair of the mechanical room ventilation systems and fan duct work; and
- the need for the upgrading of several ventilation systems in fume hood mechanical rooms.

The committee has redrafted the existing work procedures which were accepted and implemented in 1995. Repair of existing systems has been completed to ensure that leakage from ductwork into occupied spaces is minimized. Design issues involving fume hoods such as stack heights and design ventilation rates will be finalized in 1996.

Radiation Protection Program

The University research community continues to expand and utilize radiation sources in diverse and innovative ways. The primary use of the radioactive materials licensed by UBC personnel is research, with the remainder being utilized for teaching. Although the number changes constantly, there are approximately 1500 graduate students, technicians, post-doctoral fellows and faculty using radioactive materials.

The primary objective of the Radiation Safety Program is to ensure the safe and knowledgeable use of radiation sources in research, teaching and the workplace. During 1995 the University's radioisotope laboratories have been monitored in accordance with the Atomic Energy Control Board of Canada requirements. The total number of licensed areas, laboratories, decay rooms or storage sites was 649. At the end of the 1995 calendar year, of the total of 247 licenses, 118 were renewed, 51 were amended, 13 lapsed and 10 new licenses were issued.

There were no incidents or accidents that resulted in reportable personnel exposure during 1995. There were 3 minor incidents involving spills or contamination which did not result in measurable exposure.

Dosimeters supplied by Health Canada are used to monitor all workers' exposures to ionizing radiation. No significant exposure to UBC personnel occurred during 1995; all results were below the annual permissible limits for both body and extremities for members of the general public.

Users of iodine labelled compounds utilizing more than 370 kBq activity are required to report for thyroid scans on a quarterly basis. All individuals who radiolabel compounds with NaI are required to report for a thyroid scan within 3 days. No significant exposure to UBC personnel occurred during 1995, and all results were below the annual permissible limits.

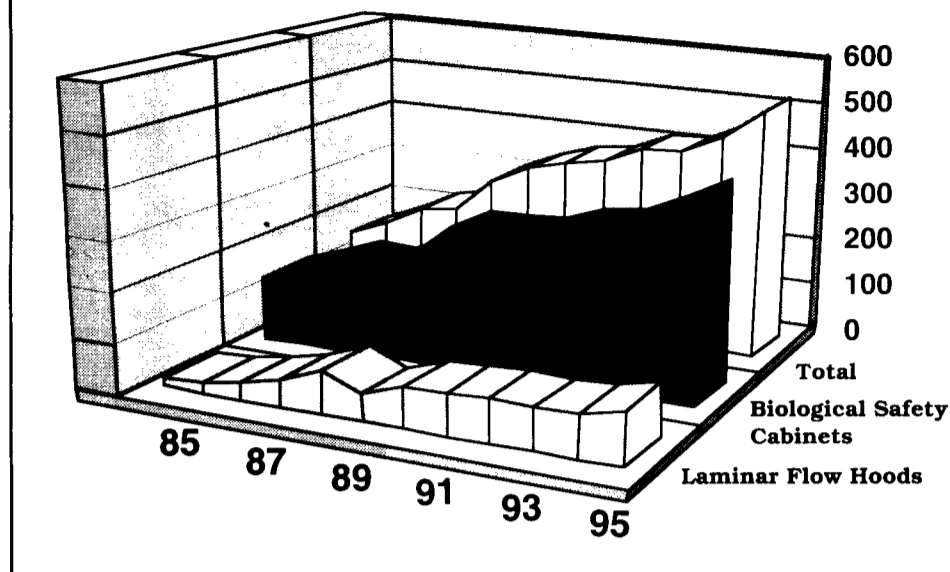
Biosafety Program

The Biosafety Program provides evaluation of the potential risks in research projects involving biohazardous materials, training in biosafety and certification of laboratories and research protocols. All research projects are reviewed and approved by the Biosafety Officer and the University Biosafety Committee prior to funding approval by granting agencies. The office also acts as a resource on issues of biosafety, including laboratory design and equipment selections. A fee for service operation of testing and certifying biological safety cabinets and laminar flow hoods is carried out through this office.

There was an increase of 14% in the number of biosafety cabinets and fume hoods tested for University hospitals and laboratories and external clients during 1995. Testing on a fee for service basis is also offered to outside companies and the amount of repeat usage of this service indicates a high degree of customer satisfaction. Departmental operating costs are offset by approximately \$100,000 by the income received for these services. As a result, the Department is able to provide certification services to UBC researchers at reduced costs.



Biosafety Cabinet Certification 1984-1995



Asbestos Management Program

The Asbestos Management Program was established in response to current Workers' Compensation Board regulations concerning hazardous materials. The program's objective is to ensure that faculty, staff and students are not exposed to airborne asbestos fibers. Members of the Asbestos Management Program are charged with the task of inspecting all buildings on campus in order to locate, collect and analyze samples of suspect asbestos material and assess the hazard associated with those materials determined to contain asbestos. They work with Campus Planning and Development and Plant Operations personnel on construction and renovation projects involving the removal and/or containment of asbestos and the training of trades personnel employed on these projects. In addition, a data base has been created for future access by all Project Management Personnel.

The Asbestos Management Program has completed the second of a three year program, ahead of schedule and below budgeted costs. A total of 4,057,194 square feet of campus building space was completed at a cost of \$239,144 which is far below the standard consultant fee and the services provided include database development, full identification, training, data entry and verification of data. Approximately two thirds of all buildings on campus have been surveyed and all work will be completed in 1996.

Diving Safety Program

The Diving Safety program provides monitoring and training to scientific divers at the University. The number of divers registered in the program doubled in 1995. Due to the relatively high risk factors associated with underwater research, this program provides extensive training in diving rescue and first aid, and certifies the competency of all University divers before research projects begin.

WHMIS Labeling Project

During the summer of 1995, the project involving chemical inventory and upgrading of labels, which began in the summer of 1994, was continued. Six UBC students completed the inventory and label upgrading in 8 additional departments. Inventories and labeling were completed in selected areas of 4 additional departments. In the fall of 1995, one work-study student continued the project completing the inventory and initiating the labeling in another department.

This project was initiated to comply with WCB orders written on two science departments early in 1994. Of the 30 departments with laboratories requiring an update of their inventory and labeling, 11 departments have thus far been completed. The project will continue in 1996 in conformance with our WCB compliance plan.

Approximately 8000 chemicals have been classified and 35,000 chemicals inventoried of which 27,000 required upgrading of labels in a total of 150 rooms.

Safety Training

In order to maintain a safety trained workforce, the department delivered courses to

a total of 1534 faculty, staff and students during 1995. A conservative estimate of the market value of these training courses is \$300,000. A Confined Space Training course, a joint project with Plant Operations and in compliance with WCB regulations, was introduced in 1995. More than 200 UBC trades people received training in entry and safe hoist lift procedures ensuring that the University maintain its accident free status in this area.

A new course, "Introduction to Chemical Safety" was delivered in January, April and September 1995 to 156 UBC faculty, staff and students. Total enrollment in chemical safety courses increased by 56%. In addition this important material was delivered in a more timely way to faculty, staff and students new to the UBC campus. The course will be given again in 1996 with similar scheduling.

1996/97 Objectives

The department strives to lead the development and implementation of health and safety programs for the University community. We are constantly examining the ways and means by which to maximize the quality of services and compliance to new regulatory initiatives. Risk management activities are being implemented in the areas of WCB claims administration to identify and introduce loss prevention programs.

Strategic Directions

1. To assist the University in complying with health and safety regulations.
2. To develop and maintain effective accident prevention, early intervention and return to work programs which will result in fewer accidents and lower costs.
3. To provide the University community with required training in health and safety programs, resulting in a workforce trained and able to work in compliance with regulations.
4. To continuously enhance professional services in response to increasingly complex technologies and regulations.

Benchmarking and Program Evaluation

In March 1995, Internal Audit carried out an examination of the department's administration. All recommendations have been implemented.

A departmental review was carried out in February 1996 and recommendations are forthcoming. A benchmark survey comparing our programs with comparator universities was undertaken as a component of the review. These results will be available in 1996.

In addition, the department is participating in the National Safety Council (U.S.) Benchmarking program which will provide the University with meaningful data describing health and safety operations in comparable institutions and will provide guidance in the development and improvement of programs.

1996/97 Goals

The major operational goals for 1996/97 will focus on our reducing our accident rates, controlling costs and pursuing dedicated compliance projects.

1. Reduce the average number of days lost per time loss accident from 29 to 25, by providing claims management training for University administrators and supervisors, and to develop a return to work plan for employees injured at work through consultation with the employee, their representatives, their physician and their department.
2. Reduce the number of time loss accidents associated with material handling in service departments by 25 per cent from 96 accidents in 1995 to 70 accidents in 1996.
3. The WHMIS compliance project, labeling, and classifying our inventory of laboratory chemicals, will be completed in the summer of 1996. This will fulfill the labeling and inventory requirements of our WHMIS compliance plan for existing stocks of laboratory chemicals.
4. The Asbestos Management Program will be completed in 1996/97. All buildings on campus will have been surveyed and any asbestos containing materials will have been identified and recorded in the inventory database. This will facilitate the University's maintenance and renovation activities and comply with WCB directives on asbestos management.
5. Reduce our rate of back injuries by providing training seminars on lifting techniques for custodial staff and other service departments' staff and carrying out ergonomic investigations on all back injuries involving loss of work time.

LUST and ingenuity win recognition

by Stephen Forgacs

Staff writer

A catchy headline, an inquisitive executive and a novel approach to process control have led to an award for a company that had the foresight to pick up on a UBC professor's research.

An innovation based on the theoretical work of Prof. Guy Dumont and PhD student Christos Zervos has won the 1996 Excellence in Product Innovation Award from the Technologies Industries Association of B.C.

"LUST in Canadian Mills," was the headline Dumont, an electrical engineering professor who holds the Paprican/Natural Science and Engineering Research Council (NSERC) Industrial Research Chair, wrote for a brief article he submitted to Pulp and Paper Canada magazine on a new adaptive control

method he developed for industrial processes.

"I wanted a catchy name for this adaptive controller," said Dumont. "And we have to have some fun in this work."

The LUST headline caught the eye of Steve Hagemoen, president of Universal Dynamics Group. Hagemoen's interest led to the development of the Universal Adaptive Controller (UAC) and the creation of a subsidiary company, Process Automation Systems Inc., which received the innovation award.

LUST actually stands for Laguerre Unstructured Self-Tuner - a control algorithm or set of mathematical equations that, when written into computer software, can be used to control industrial processes.

Adaptive control is a technique in which operating parameters for a particular model or, for example, piece of machin-

ery, are continually adjusted to ensure optimal performance or efficiency. Standard fixed controllers, which are widely used in industry at present, allow the operator to set the parameters but do not account for gradual changes in these parameters that occur over time during operation.

"What LUST does is simplify the process tremendously. In the pulp and paper industry, and other process industries, there's a long time delay between the actuation point where you change things to control a process and the end result," Dumont said.

"That delay can change without much notice and in fairly unpredictable manners. With standard fixed controllers it can be very complicated to handle that situation. With LUST it's easy, almost trivial."

The UAC, which was developed based

on Dumont's theoretical work, is now being used in a number of industrial applications, replacing standard controller technology that has been in use since the 1930s. Among the industries that have adopted the adaptive controller are lime manufacturers, who are using it in their lime kilns, the natural gas industry, glass manufacturers and breweries. Use of the UAC by Molson Breweries in Vancouver to control foam levels in its brewing kettles has led to an increase in production, Dumont said.

Although not surprised by the success of the UAC, Dumont hadn't expected a small company to be willing to take on development of the controller.

"I was surprised to see a small company run with this. I think it says a lot about the management of the company who freed up two engineers just to work on this project," he said.

Dal Grauer Memorial Lectures at UBC

BIOTECHNOLOGY: Cornucopia or Pandora's Box?

Saturday, September 21 at 7:00 PM
in UBC Woodward IRC, Hall 2

Moderator: Dr. Sid Katz
Executive Director of Science World

Dr. Robert Hancock
UBC Professor of Microbiology
Chair, Scientific Advisory Board of Micrologic Biotech Inc.

Mr. Brewster Kneen
Sr. Fellow, Environmental Studies, York University 1994/95

Ms. Patricia Rodney
Visiting Lecturer, Uvic School of Nursing

Dr. John R. Williams
Director, Department of Ethics, Canadian Medical Association

Special Fund-Raising Event \$25
Tickets: Call 822-5675

UBC ROADMAP TO COMPUTING

An Introduction to Networked Computing Facilities
<http://delirium.cs.ubc.ca/>

FREE Lectures and Hands-On Tutorials

A FREE lecture, tutorial series, and new web-based courses are available to help familiarize faculty, staff, and students with the computing facilities at UBC. A companion document to the lecture series, entitled *UBC Roadmap to Computing*, is available for a nominal cost and is also online at <http://delirium.cs.ubc.ca/>. All lectures will take place in the Centre for Integrated Computer Systems Research (CICSR) building in room 208.

Electronic Mail: Sept. 11, 12:30 - 1:30, Sept. 16, 4:30 - 5:30
Netinfo/Interchange: Sept. 10, 12:30 - 1:30, Sept. 12, 4:30 - 5:30,
Intro to UBCLIB (UBC Library's on-line catalogue): Sept. 16, 12:30 - 1:30
Intro to UNIX: Sept. 11, 4:30 - 5:30, Sept. 17, 4:30 - 5:30
Intro to C++: Sept. 6, 12:30 - 1:30, Sept. 9, 12:30 - 1:30
The Web and News: Sept. 9, 4:30 - 5:30, Sept. 13, 12:30 - 1:30
UNIX Editors: Sept. 17, 12:30 - 1:30

We are offering two FREE hands-on tutorials: Introduction to UNIX, and Introduction to C++ programming. As space is limited, please or send e-mail to roadmap@cs.ubc.ca, or phone 822-0557 in order to reserve a space. There are also two interactive courses available on the World Wide Web. For more information consult the Roadmap homepage at <http://delirium.cs.ubc.ca/>, send e-mail to roadmap@cs.ubc.ca, or call 822-0557.

This program was made possible through the support of The Teaching and Learning Enhancement Fund, The Provincial Government Innovation Fund, and The Department of Computer Science.



LANGUAGES

French

Spanish

Japanese

Chinese

German

Italian

Punjabi

Arabic

Greek

Swedish

Non-credit conversational classes start

September 21st

- Afternoon, evening or Saturday morning classes for adults
- Saturday afternoon classes for 15-17 year olds

822-0800

Language Programs and Services

UBC Continuing Studies

<http://www.cstudies.ubc.ca/languages/index>

Project focuses attention on plight of survivors of violence

by Connie Bagshaw

Staff writer

Every 12 seconds a gong strikes as another woman is battered. Every minute a whistle blows, reporting another rape. Four times in 24 hours a bell rings, mourning the women who have died that day as a result of violence.

These sounds speak louder than statistics on behalf of women survivors and victims of violence in North America. So do multi-coloured t-shirts. Together, they form the basis for the Clothesline Project, a visual and audio display of violence against women.

"Similar to the AIDS quilt, the Clothesline Project started in the U.S. six years ago to put a human face on statistics about violence against women," said Laurie Minuk, a counsellor in the Women Students' Office (WSO).

"The idea of a clothesline displaying t-shirts decorated to represent women's experiences with violence emerged from the old adage about not airing our dirty laundry in public," she explained.

Minuk is co-ordinating the introduction of the Clothesline



Project to UBC, its first appearance in Western Canada.

In a series of workshops facilitated by counsellors from the WSO, participants in the Clothesline Project will be provided with a time and place to decorate their own t-shirts. Those who prefer to complete their t-shirts in private may bring or mail them to the WSO.

"Issues raised for women in an exercise like this can be a major part of the healing process for someone who may not have had any other opportunity to talk about their experience," Minuk said.

Just as the number of beatings, rapes and deaths women suffer each day across North America is represented by gongs,

whistles and bells on a sound-track that will play during the workshops, the t-shirts have been colour-coded for different types of violence: yellow or beige for sexual assault; red, pink or orange for incest or child sexual abuse; purple or lavender for assaults against lesbians; and brown for assaults on women of colour.

In order to express their loss, family members and friends of women who have died as a result of violence will be provided with white t-shirts.

The project is intended for UBC women students. Two public showings will take place at the SUB Gallery: Dec. 2 - 6 to honour the memory of the women killed at Montreal's Ecole Polytechnique; and next March to coincide with International Women's Day.

The first series of workshops takes place Sept. 20, Sept. 27 and Oct. 4. Pre-registration is required. T-shirts will be provided, or participants may bring their own.

Donations of plain, coloured t-shirts, fabric paints and sewing materials are needed. For information, or to make a donation, call the WSO at 822-2415.



THE UNIVERSITY OF BRITISH COLUMBIA

Presidential Search Committee

President - Candidate Profile

The Presidential Search Committee, with extensive input from members of the UBC community, has developed criteria for the background, experience, skills, and personal qualities to be sought in candidates for President of the University of British Columbia. As required under the Presidential Search Committee terms of reference, these criteria were approved by the Board of Governors at its meeting on July 18, 1996. The Committee recognizes that no one individual will possess all of these qualities in equal measure. These are the characteristics, in no specific order, that the Committee will consider:

1. ACADEMIC STATURE

A record of excellent academic achievement, with contributions to teaching and scholarly activity in some field, in order to ensure understanding of the university environment and to generate respect within and outside the academic community

2. VISION, ABILITIES, AND KNOWLEDGE

• Vision

A well-developed sense of the role and future direction of a major research and teaching university. The President must appreciate the rapidly evolving environment in which universities function, understand the need for change, and be committed to the central and necessary characteristics of the university

• Administrative Abilities

A proven track record in administration; the ability to think creatively about existing institutional structures, and a demonstrated record of making constructive changes; an effective team builder, with a commitment to openness, while understanding the need for executive authority; proven planning abilities, preferably in a university environment

• Fiscal Competence

The ability to understand a complex financial situation, so as to provide leadership to accomplish the University's priorities and objectives; the ability to defend and to secure the necessary resources to sustain and develop the University, while safeguarding its autonomy

• Government and Community Relations

The ability to be a strong advocate for universities and post-secondary education in general

and UBC in particular; a preparedness to work effectively with all levels of government, particularly the Government of British Columbia; an appreciation of the role of universities in serving the long-term public interest

3. INTER-PERSONAL ATTRIBUTES

• Focus on People

A commitment to inclusiveness and approachability, which fosters trust and builds morale; a focus on the recruitment of outstanding faculty and staff, and the achievement of an effective, enriching educational experience for all students; a strong sense of social justice, with concomitant recognition of the need for access and equality at UBC

• Communications

Exceptional communications skills, in order to represent effectively the value, diversity and achievements of the University, both within UBC and to the broader community; the ability to consult, listen, and build campus-wide consensus in arriving at decisions

4. PERSONAL QUALITIES

• Integrity

• Confidence and decisiveness

• Good judgment and common sense

• An open, accessible personal style

• Energy, stamina, and creativity

Since the initial membership of the Committee was established, the Management Resources Compensation Committee of the Board has appointed Dr. Robert Blake, current President of the Faculty Association, to replace Mr. Tony Sheppard, the outgoing President. Mr. William L. Sauder, Chair of the Presidential Search Committee, thanked Mr. Sheppard for his contributions to the deliberations of the Committee.

Mr. Sauder indicated that the work of the Presidential Search Committee is going well, and should meet, or exceed, the time schedule specified by the Board. The Committee met on July 17, 1996, to review a preliminary list of candidates, and has other meetings scheduled in September, October and November.

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The classified advertising rate is \$15.75 for 35 words or less. Each additional word is 50 cents. Rate includes GST. Ads must be submitted in writing 10 days before publication date to the UBC Public Affairs Office, 310 - 6251 Cecil Green Park Road, Vancouver B.C., V6T 1Z1, accompanied by payment in cash, cheque (made out to UBC Reports) or internal requisition. Advertising enquiries: 822-3131.

The deadline for the September 19, 1996 issue of UBC Reports is noon, September 10.

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Paper Makers

Stephen Forgacs photo

Children participating in a Geering Up summer camp program turn used paper into pulp as part of an experiment in papermaking. Geering Up, founded and operated by UBC engineering students, ran week-long science camps throughout the summer to introduce children to engineering.

News Digest

Academic freedom and the inclusive university is the title of a national conference to be hosted at UBC April 10-12, 1997

Prof. Dennis Pavlich, co-chair of the conference advisory committee, said debate will be approached from a scholarly perspective addressing broad historical, philosophical and political questions.

"The focus will be on the intersection of the two sets of values implied by the phrases 'academic freedom' and 'the inclusive university,'" said Pavlich. "The intent is to clarify the issues and to evaluate ways and means by which conflicts may be resolved."

Lawyer Thomas Berger, Globe and Mail reporter Margaret Wente and Lorna Marsden, president of Wilfred Laurier University, are a few of the prominent speakers scheduled to appear at the conference. Among the topics under discussion: the role of the university in a changing culture; tracing the discourses on academic freedom and inclusiveness; and promoting both academic freedom and inclusiveness.

Those interested in making a presentation should send a summary of their ideas to: Prof. Dennis Pavlich, Conference on Academic Freedom and the Inclusive University, UBC, Old Administration Building, 6328 Memorial Road, Vancouver, B.C., V6T 1Z2 or fax to (604) 822-8731. Deadline for submissions is Oct. 1.

A new fund-raising initiative launched by UBC's Faculty of Law will create an endowment in support of excellence in legal education.

The campaign, co-chaired by UBC law graduates Michael O'Keefe and Dorothy Byrne, has an initial goal of \$1 million. Contributions to the UBC Law Endowment will be matched by the university's President's Fund, creating a \$2-million fund.

"Donations to the UBC Law Endowment will support, in perpetuity, legal education that challenges, stimulates, encourages and promotes critical thinking and innovation," said Law Dean Lynn Smith.

"Support for the fund will produce generations of leaders in the profession and the community who are well-equipped to fulfill increasingly challenging roles, and will create a strong base for the future of legal education at UBC, benefiting the province and Canada as a whole."

Activities which will be supported by the endowment include enhanced legal research and writing programs, student and faculty research projects, professional development, conferences and public forums, public policy research, student aid and alumni communications.

UBC's Faculty of Law is the second largest in Canada, drawing 180 students a year nationwide into its undergraduate program.

For more information about the UBC Law Endowment, or to pledge support, call (604) 822-3303.

The ethics of biotechnology will be the focus of a panel discussion among four pre-eminent scientists at UBC on Sept. 21.

Sid Katz, executive director of Science World, will moderate debate around the central question, "Biotechnology: Cornucopia or Pandora's Box?"

Panelists include: Patricia Rodney, chair of the 1995 Canadian Bioethics Society Conference on Health Care Ethics in a Multicultural Society; Robert Hancock, UBC Prof. of Microbiology; author Brewster Kneen, former Senior Fellow, Environmental Studies, York University; and John Williams, director, Dept. of Ethics, Canadian Medical Association.

The panel will probe issues surrounding commercial biotechnological research and production, ethics and philosophy of science and economics and the academic biotechnological research field. Subtopics include biopiracy, food as multinational property, cosmetic evolution, eradication of genetic disease and the patenting of human, animal and agricultural genes.

Held under the auspices of the Dal Grauer Memorial Lectures, the event takes place in UBC's Woodward Instructional Resources Centre, Hall 2 at 7 p.m. A question period will follow the discussion as will a sponsored reception in the lobby. Tickets are \$25. For more information call 822-5675.

People

by staff writers

UBC's Curator of Manuscripts, **George Brandak**, has been awarded a Regional History Certificate of Merit (British Columbia/Yukon) by the Canadian Historical Association (CHA) for his outstanding contribution to the study of British Columbia's past.

Brandak, who has worked in the Special Collections Division of the UBC Library since 1973, served as an archivist with the Provincial Archives of Alberta and the University of Saskatchewan Archives before joining UBC.

Through his work in Special Collections, Brandak developed an expertise on historical sources relating to the natural resource industries in the province, as well as labour history and the development of socialism in B.C. politics.

Brandak was cited by the CHA for his breadth of knowledge, inventive approach to research and his enthusiasm for the province's history.

Dr. Stephan Schwarz, a physician and currently a PhD student in the Dept. of Pharmacology and Therapeutics, has received the \$10,000 Pharmacia-Upjohn Award for 1995/96.

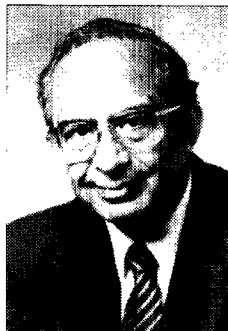
The award is given for the support of an outstanding first-year graduate student.

Schwarz conducts laboratory research on the effects of local anaesthetic agents on the central nervous system. He is also a clinical investigator with the Clinical Pharmacology Research Organization (CPRO), which is a joint venture of the Dept. of Pharmacology and Therapeutics and the Dept. of Anaesthesia.



Schwarz

Vinod Modi, a professor emeritus in the Dept. of Mechanical Engineering, has received the highest award in the area of aerospace engineering given by the American Institute of Aeronautics and Astronautics. With this recognition, Modi becomes the first individual to receive the highest awards from each of the three leading technical agencies in this field in North America. In 1991 he received the highest award of the American Astronautical Society, and in 1993 he received the Canadian Aeronautics and Space Institute's top award.



Modi

He was cited for his "pioneering, unique and most important contributions toward the advancement of spacecraft dynamics, control and space robotics, and for his pervasive academic impact upon several generations of spacecraft dynamics and control students."

Modi also received the Best Paper Award at the Sixth International Offshore and Polar Engineering Conference in Los Angeles last May. His paper, Drag Reduction and Vibration Suppression of a D-Section Structural Member Through Momentum Injection, was one of more than 500 contributions presented at the conference.

Michael Houston, former associate dean of Graduate Affairs and Research at the University of Waterloo, Faculty of Applied Health Sciences, is the new director of UBC's School of Human Kinetics.

Houston, who received a PhD in Biochemistry from the University of Waterloo, served as a faculty member in the university's Dept. of Kinesiology from 1969 and spent a year as a visiting professor at the University of Texas Southwestern Medical Centre at Dallas and at the University of Copenhagen.

In addition to his memberships in the Canadian Association of Sports Sciences and the American College of Sports Medicine, Houston served as a member of the American Association for the Advancement of Science, the Nutrition Today Society and the Sport Nutrition Advisory Committee for the Sports Medicine Council of Canada.

From 1992 to 1994, he was president of the Canadian Society for Exercise Physiology. Houston currently chairs the Registry Sub-Committee of the Sports Nutrition Advisory Committee. He is the author of the recently published book, *Biochemistry Primer for Exercise Sciences*.



Houston

Music Prof. Jesse Read has been appointed director of the School of Music for a five-year term which began July 1.

Read received his undergraduate training in music at Florida's Jacksonville University and his MMus from the University of Victoria where he served as a full-time faculty member between 1975 and 1986. He also studied at the Music Academy of the City of Basel, Switzerland and at Yale University Summer Institute for Conducting and Chamber Music. Prior to joining UBC in 1990, Read was a faculty member at the University of Delaware, Newark.

A co-founder of the Victoria Early Music Association, he is a past board member of the Vancouver Youth Symphony Orchestra and the Victoria Symphony Association.

Read has participated in numerous recordings and has made solo appearances in France, Germany, Switzerland, Holland, Canada and the U.S. His performances as principal bassoonist include the Vancouver Opera, the San Francisco Opera, the Netherlands Chamber Orchestra, the Metropolitan Opera National Company and the CBC Curio Ensemble.

In addition to serving as a member of the visiting faculty of the European Mozart Academy in Prague, Florence and Krakow, Read has also been a guest professor at the Utrecht Conservatory of Music in the Netherlands and, more recently, at the Montpellier Conservatory in France.

His research interests include 18th century performance, conducting, chamber music and bassoon pedagogy.

UBC's Board of Governors

SHIRLEY CHAN, chair of UBC's Board of Governors and manager of Non-Market Housing, City of Vancouver, was appointed to the board in 1992. Educated in Ontario and B.C., she received a master's degree in environmental studies from Toronto's York University in 1978. Chan has served as a private consultant and as an environmental and community planner. She was the chief of staff to the mayor of Vancouver between 1981 and 1986 and executive assistant to the president of BCIT responsible for research planning, community and media relations, board support coordination and fundraising. Chan has been a director of VanCity Savings Credit Union since 1987 and served as chair from 1993 to 1995. She is also a director of Citizens Trust and vice-chair of VanCity Enterprises. In 1993, the Alumni Association of Simon Fraser University presented Chan with the Outstanding Alumni Award for service to the community. She gained national recognition in the late 1960s for her leadership role in obtaining changes to Canada's housing program.



Chan

JOANNE EMERMAN, a professor of Anatomy, was elected by faculty to the board in 1996. She received her PhD and post-doctoral training at the University of California at Berkeley before joining UBC in 1980. Emerman has served as acting head of the Dept. of Anatomy and as chair of the Faculty of Medicine Curriculum Evaluation Committee. She was a member of UBC's Faculty Association executive and also served on the university's Senior Appointments Committee and Faculty Development Mentoring Network. Currently, Emerman is a member of UBC's Faculty Pension Board and Advisory Committee for the Women's Resources Centre. In addition, she is deputy chair of the Scientific Advisory Committee of the British Columbia Health Research Foundation. A previous scholar of the National Cancer Institute of Canada, she presently serves on the boards of several international associations for cancer research.



Emerman

KEN GEORGETTI, president and CEO of the B.C. Federation of Labour, the central labour body representing 340,000 members in the province, was appointed to the board in 1995. Georgetti also serves as provincial vice-president of the two-million member Canadian Labour Congress and as board chair of the Working Opportunity Fund. Active in community service, he is a board member of ABC Canada, a foundation which promotes literacy, and is the honorary chair of the Association of Learning Disabled Adults. Currently a member of the Treaty Negotiation Advisory Committee on Land Claims, Georgetti has also served as co-chair of the Premier's Summit on Trade and Economic Opportunity. Formerly a member of the dean's advisory council in UBC's Faculty of Commerce and Business Administration, Georgetti is a member of the dean's advisory committee in the Faculty of Law.



Georgetti

TARAI VANOCHKO, an undergraduate student working toward an honours BSc degree in Oceanography and Biology, was elected by students for a one-year term to the board in 1996. Ivanochko studied at Memorial University in Newfoundland and at the University of Saskatchewan in Regina before transferring to UBC in 1994. Since arriving on campus, she has been active with CiTR student radio and served on the executive of student council as AMS Director of Finance in 1995/96. For the past seven years, Ivanochko has performed volunteer work for women's centres across Canada.



Ivanochko

HAROLD KALKE, president and owner of Kalico Developments Ltd., a real estate development and investment company, was appointed to the board in 1994. Kalke received a BSc in civil engineering from the University of Alberta and an MBA from the University of Western Ontario. His real estate development projects are widely acclaimed as being critical elements in the re-establishment of "neighbourhood" and have won community and heritage awards, including the Ethics In

UBC's 15-member Board of Governors comprises the chancellor, the president, eight persons appointed by the lieutenant governor, two faculty members elected by faculty, two full-time students elected by students and one person elected by and from the full-time employees of the university who are not faculty members. Currently, there is one vacancy on the board.

By legislation, the board is responsible for the management, administration and control of the property, revenue, business and affairs of the university including the appointment of senior officials and faculty on the recommendation of the president.

The governors represent diverse backgrounds which provide valuable input during board deliberations. Although members bring to the board the views of various constituencies, there are no advocates for any one group. Decisions are made in the best overall interests of the university and in support of UBC's mission to be a world renowned institution of higher education and research.

Action Award. He is a member and director of the Urbanarium Development Society, a non-profit organization devoted to increasing understanding of urban planning and development issues and a member of the Advisory Planning Commission for the District of West Vancouver.



Kalke

ROSLYN KUNIN, executive director of the Laurier Institution, was appointed to the board in 1993. She was educated in Quebec and Ontario and received a PhD in economics from UBC in 1970. Kunin was a visiting assistant professor in agricultural economics at the university in 1972-73, before joining Employment and Immigration Canada as a regional economist where she served for 20 years. She also sits as a member of the National Statistics Council and on the board of the Vancouver Stock Exchange. Kunin has been honoured by the Association of Professional Economists of B.C. on several occasions with the Crystal Ball Award for forecasting the Canadian economy. In 1994, she received the YWCA Women of Distinction Award for management and the professions and an honorary degree from the University of Victoria.



Kunin

CHENG-HAN LEE, an undergraduate student majoring in Pharmacology and Therapeutics, was elected by students for a one-year term to the board in 1996. Lee is currently the AMS safety commissioner and has helped produce the student council's first safety audit report. As a Safer Campus peer educator, he has also been active in raising students' awareness on the issues of acquaintance sexual assault and personal safety.



Lee

TONG LOUIE, chair and CEO of H.Y. Louie Co. Ltd., was appointed to the board in 1990. A UBC graduate (Agriculture '38), Louie is also chair, president and CEO of London Drugs Ltd., and vice-chair and director of IGA Canada Ltd. He has been named the Entrepreneur of the Year for B.C., the Vancouver YMCA's Outstanding Community Volunteer Leader, Man of the Year by local service groups and a member of the Order of Canada. Numerous other honours include the Order of B.C., the Knight of the Golden Pencil Award, the highest award bestowed by the food industry in Canada, and the Variety Club's Golden Heart Award which he received for his fund-raising activities on behalf of B.C.'s Children's Hospital. He received an honorary LLD from UBC in 1990 and was presented with the 1993 Individual Philanthropic Leadership Award by the Association of Fund Raising Professionals of B.C. for helping to improve the lives of British Columbians.



Louie

LOIS MOEN, an administrative clerk in the Faculty of Medicine, Dean's Office, Postgraduate Education, was first elected by staff to the board in 1993 and was

re-elected to a second three-year term in 1996. She has held her current position since 1989 after joining UBC a year earlier as a clerk in the Telecommunications Dept. Moen has served as a shop steward for CUPE 2950 for the past six years, and has sat on the union local's executive since 1991.



Moen

MICHAEL PARTRIDGE, who served as regional vice-president of employee benefits for London Life Insurance Co. before his retirement, was appointed to the board in 1991. A UBC graduate (BCom '59), he has served as vice-president and president of the UBC Alumni Association and was co-chair of the David Lam Management Research Endowment Fund. Partridge received the Blythe Eagles Volunteer Service Award in 1987 and was a recipient of the 1990 UBC Alumni 75th Anniversary Award of Merit.



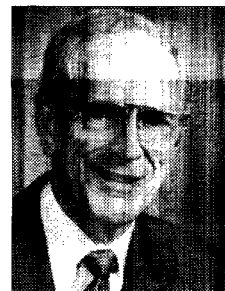
Partridge

PHILIP RESNICK, a Political Science professor, was elected by faculty to the board in 1996. A graduate of Montreal's McGill University and the University of Toronto, he joined UBC in 1971 and served a term as a UBC Senator between 1990 and 1993. In addition to being a frequent media commentator on public affairs, Resnick is the author of six books and numerous academic articles, and is a recipient of the Harold Innis Book Award. His major commitment as a member of the board is to the defence of the principles of a liberal university.



Resnick

WILLIAM SAUDER, chancellor of the university, is a UBC graduate (BCom '48) and chair and CEO of International Forest Products and Sauder Industries Limited. He was a member of UBC's Board of Governors from 1981 to 1987, and served as chair of the board for the last two years of his term. He received an honorary degree from UBC in 1990. Long-time patrons of the university, the Sauder family has supported several medical science initiatives at the university. The Sauder Family Chair in Pediatric Diseases and the Sauder Family Chair in Viral Diseases of Children are named in recognition of the family's philanthropy. In addition to his activities in the forestry sector, Sauder currently serves as a member of the board of directors and executive committee of the Toronto-Dominion Bank.



Sauder

DAVID STRANGWAY, president and vice-chancellor of UBC, became a member of the board upon his appointment as president in 1985. The son of medical missionaries, he attended school in Angola and Rhodesia before entering the University of Toronto (U of T) in 1952 where he earned undergraduate and graduate degrees in physics. Strangway was a faculty member at the University of Colorado and at the Massachusetts Institute of Technology before joining the Physics Dept. at U of T in 1968. In 1970, he became chief of NASA's Geophysics Branch, responsible for the geological aspects of the Apollo missions. Strangway was recently named an Officer of the Order of Canada.



Strangway

MARION YORK, a learning assistance teacher, was appointed to the board in 1994. York, who received a BEd, MEd and a diploma in Special Education from UBC, currently provides language support services in French and English to students with special needs at John Peterson Secondary School in Kamloops. She also works with community resource personnel to provide information and workshops concerning children with learning difficulties. York has served on the Council for Exceptional Children as the executive member in charge of educational technology and sits on the board of the Thompson-Nicola Family Resource Society.



York