UBC Archives Serial

UBC, Cariboo College discuss degree standards

By GREG DICKSON

UBC is negotiating with Cariboo College in Kamloops to develop standards that could lead to the granting of university degrees.

President David Strangway says a joint task force has been established to develop the neccessary academic standards.

"We think that it's important that people in the interior have opportunities for education, but we can't provide them all at UBC," said Strangway. "If we can help to make this happen, we're pleased to do so."

Strangway said the university cannot contribute to the cost of providing degrees, but will work with Cariboo and other colleges in establishing the neccessary framework and standards. Okanagan College in Kelowna has also expressed interest in negotiations with UBC.

"These would be affiliations," said Strangway. "The degrees would be UBC degrees. But they might be designated UBC-Kamloops degrees."

Strangway said the university will insure that high standards are maintained at participating colleges in the appointment and promotion of faculty, the quality of teaching labs and library standards.

He also said the affiliations would be temporary, probably for a 10-year period. By that time, he said, the interior colleges will probably no longer need a partnership with UBC.

UBC Reports

The University of British Columbia, Vancouver, B.C. Volume 35, Number 4 Feb. 23, 1989

PAPERWORK

Surplus Equipment and Recycling Facility coordinator Vince Grant is deluged with paper. SERF is launching a campus recycling campaign.

Cooperation sought

Recycling campaign set

By GAVIN WILSON

Recycling, an idea that has been quietly gaining favor in recent years, is set for a big push at UBC.

A campus-wide campaign is gearing up under the coordination of the Surplus Equipment and Recycling Facility (SERF). Paper, scrap metal and glass are the initial targets of the campaign.

"It's a program that's greatly needed out here," said SERF coordinator Vince Grant, "but we need everyone's cooperation to help make it work."

Grant said recycling could offset the $1,000 per day cost of waste disposal on campus.

"And perhaps more importantly, by recycling the vast amounts of waste we generate at UBC, we will remove some of the stress which we place on our fragile environment every day," he said.

Although returns vary depending on the type and quantity of waste, almost all paper, metal and glass can be recycled. The University of Washington, similar in size to UBC, each month recycles 20 to 30 tonnes of waste paper which produces $3,000 to $4,000 in revenue for the university, Grant said.

"I'm hoping that here we will be recycling about 20 tonness of paper a month by the summer," he said.

"It will create a couple of jobs for students, show the community that the university is doing its part and return some money too."

Small "paper only" boxes will be placed in areas where large amounts of paper are discarded. Once full, custodial staff will empty them into larger containers located in loading bays of most departments. These will then be emptied on a regular basis by SERF staff.

Metal recycling will be aimed at workshops and other areas where metal is routinely disposed of in large quantities. Glass will be removed by Physical Plant and delivered for processing.

For containers and more information on the recycling program, call SERF at 228-2813.

New foundation a major boost to fund raising in U.S. by UBC

By GAVIN WILSON

University fundraising efforts in the United States have received a major boost with the establishment of The American Foundation for UBC.

The foundation was announced at an informal reception held at the Canadian embassy in Washington, D.C., attended by recently appointed Ambassador Derek Burney, President David Strangway, Alumni Association President John Diggens and about 60 grads from Washington, Virginia, Maryland and New York state.

The event also earned a footnote in Canadian diplomatic history. It was the last official function held in the old embassy, which is being replaced by a new building designed by Arthur Erickson.

Speaking on the importance of the new foundation, Strangway told the gathering that it will allow tax benefits for donations made to UBC by U.S. corporations, charitable foundations and citizens.

Welcoming Strangway to the U.S. capital were UBC alumni representative Jay Brown and his wife Carolyn, also a UBC graduate. Also attending were Lillian Gates, of Ithaca, N.Y. one of the original Great Trekkers from the class of 1924, T.E.(Ted) Arnold, of New Jersey (class of 1927), Allan Diamond, of New York City, and political columnist Allan Fotheringham

Picture on Page 3

Planning begins for celebration of 75th anniversary

By JO MOSS

UBC is 75 years old in 1990 and the party is already being planned.

"UBC's 75th anniversary will be a time to look back and take stock of past accomplishments as well as an opportunity to look forward and make plans for the future," said David Strangway, UBC's President.

An Anniversary Planning Committee, headed by Leslie Peterson, UBC's Chancellor, will coordinate all groups participating in the anniversary events. The campus community, public and private sector organizations, and provincial and municipal governments will be involved.

Other members of the planning committee are: Dan Birch, Vice-President Academic and Provost; John Diggens, President Alumni Association; Bruce Gellatly, Vice-President Administration and Finance; Bob Miller, Vice-President Research; Tim Miner, Director of Physical Planning and Development; Margaret Nevin, Director of Community Relations, who will serve as committee vice-chair; Hugh Pickett, Impressario and well-known Vancouver arts figure; K.D. Srivastava, Vice-President, Student and Academic Services; Eileen Stewart, Director of Personnel Services; Alice Strangway, wife of UBC President David Strangway; Terry Sumner, Director of Financial Services; and Dr. Bill Webber, Dean of Medicine.

Additional members will be recruited from UBC's Alma Mater Society, the student body, the UBC Development Office, and the outside community, Peterson said. But all faculty, staff and students are encouraged to become involved, he added.

Places are open on supporting committees which have been set up to work closely on specific anniversary activities. They are:

A group will solicit sponsorship from local and national companies to underwrite some of the anniversary programs and investigate possible funding from government granting agencies.

Sumner will head a group to handle all budgeting and financial administration for special anniversary programs. A souvenir merchandise subcommittee will be headed by Don Donovan, Merchandise manager at the UBC Bookstore.

A marketing and production services group will be responsible for designing and implementing all anniversary marketing activities.

B.C. artist Raymond Chow will chair a sub-committee of well-known artists.

See SPECIAL on Page 2

Strangway responds to student protest

By GREG DICKSON

About 40 students occupied the office of President David Strangway for three hours last Wednesday to protest against a tuition fee increase.

Strangway was out of the office at the time of the noon-hour occupation, but returned early from a downtown luncheon to answer questions from the students.

"Nobody in this province has done more than I have to fight for accessibility to post-secondary education," Strangway told the students.

Strangway fielded questions for 45 minutes, but declined a demand to organize a forum to protest against the provincial government's funding of post-secondary education.

"I want to see what the government does in the new budget first," said Strangway. "They have been improving funding levels."

UBC's Board of Governors agreed to a 10 per cent tuition fee increase in January to avoid a projected cut of 30 faculty positions.

Theresa Andrews, seen here with seeing-eye dog Elka, is one of UBC's blind students whose studies have been disrupted by equipment breakdowns at Crane library.

Crane seeks $150,000 to buy new equipment

By GAVIN WILSON

Crane Memorial Library is urgently seeking $150,000 to replace and upgrade defective audio taping equipment that has brought many services for blind and visually disabled students to a standstill.

Equipment failures at the library have disrupted production of the taped textbooks, research material and exams on which the 35 students depend.

"It's really slowed me down this term," said Theresa Andrews, 23, a blind student who is taking qualifying courses for the master's program in Counselling Psychology.

For her, the technical problems have meant straining to hear a textbook hastily taped with third-rate substitute equipment, doing without important research materials and serious cuts in study time. Other blind and visually disabled students have voiced similar complaints, she said.

"Research has been almost impossible," she said while her seeing-eye dog, a black Labrador named Elka, sat patiently at her side. "It's been very frustrating."

The duplicators are used to make high-speed, multiple copies of texts and other research material on cassettes. The taped texts, called talking books, form the largest part of Crane's collection, and are also used by the physically disabled and those who cannot read due to neurological or physiological problems.

As much as 90 percent of Crane's collection has been produced in-house, using volunteers and staff members who read material in eight recording studios.

The old equipment, originally purchased in 1974 with off-campus funding, was steadily deteriorating and spare parts were increasingly difficult to find, said head librarian Paul Thiele. Twelve new machines are needed to meet the demands of users, he added.

"We produce in excess of 10,000 cassettes each year and duplicate two to three thousand master reels which are then used to make copies. The wear and tear is considerable," said Thiele.

The last functioning tape machine broke down at the beginning of December, in the middle of preparations for Christmas exams, putting Crane into "an emergency situation," he said.

Stop gap measures were taken, but neither Crane nor the students are satisfied with the results. Exams taped with hand-held recorders were difficult to hear.

"The analogy for a sighted student is getting a smudged, nearly illegible exam paper," said Thiele.

Also affected by Crane's plight are distance users including students at Vancouver Community College, University of Victoria, Simon Fraser University and universities in Alberta and Ontario.

Fundraising efforts have recently been tied to the major campaign, coordinated by the Development Office. Earlier this month Crane received a cheque for $10,000 from the Rotary Club of Vancouver. Three new taping machines have been purchased with funds from an endowment, although they are not yet operational.

"The university and the university library are not able to provide the capital funding that we need right now, " said Thiele.

Special committee to assist campus to initiate projects

Continued from Page 1

A programs group will plan and execute up to ten special events during 1990. They include: New Year's Launch, March Open House, Summer Festival, September Birthday Celebration, Celebrity Auction, and Christmas Festivities.

In anticipation of faculty and departmental special projects -- commemorative publications, exhibits, heritage activities, historical ceremonies, and student exchanges -- a special projects group, headed by William Webber, Dean of Medicine, will assist campus groups in identifying and initiating these projects.

Alice Strangway is chair of a legacy group that will create permanent legacies from UBC's anniversary year. Legacies may include building or grounds improvements, new programs, and new equipment.

Activities tied to UBC's fundraising campaign will be coordinated with anniversary events by a campaign group, chaired by a member of UBC's Campaign Leadership Committee. The group will be responsible for selecting and carrying out all campaign-related events.

Community-based programs are another feature planned for the anniversary year. To be chaired by Hugh Pickett, the programs group will liaise with B.C.'s universities, colleges, and high schools, cultural groups, private organizations, non-profit groups and three levels of government to put community programs into effect.

A number of activities will be sponsored by branches of UBC's Alumni Association. An alumni group chaired by John Diggens will coordinate branch events including Homecoming Week, 75th anniversary reunions, and produce a special anniversary issue of The Chronicle. Plans are also under way to re-create the original Great Trek.

Eileen Stewart will chair a group which will provide technical and support services for all departments. The Strategic Systems and Services committee will handle such campus services as facilities booking procedures and supporting technical services.

The next issue of UBC Reports will contain a special insert describing plans for the university's 75th Anniversary in more detail and outlining ways in which faculty, staff and students can become involved.

Dumping tailings in body of water may be practical, scientist discovers

By GAVIN WILSON

A scientist at UBC has discovered that dumping mine tailings directly into a body of water can sometimes cause less environmental damage than other methods of disposal.

"I know it sounds strange, but in certain situations it offers greater environmental protection than land disposal," said Thomas Pedersen, a professor in the Department of Oceanography.

Tailings often contain toxic heavy metals and other pollutants that contaminate drinking water supplies or harm marine life.

But studies done at two aquatic dumps in B.C. have convinced Pedersen that if the mining debris is covered over with enough natural sediments there is little chance it will release metals into the water.

For the metals to be released, tailings must be exposed to oxygen, which is less likely if the dump is covered with a layer of sediment. The breakdown of organic matter in sediments, such as algal and planktonic remains, leaves and wood, also acts to consume oxygen from the water.

This often means that lake sediments contain no oxygen, an ideal condition for the storage of most types of mine tailings, said Pedersen.

"I don't want to sound like an apologist for the mining industry, but there are only three options: put the tailings in the water, on the land, or don't mine at all. I don't think we're willing to give up on the use of metals in our society yet," he said.

Pedersen studied a tailings dump in Buttle Lake, the major source of drinking water for the Vancouver Island community of Campbell River, after high levels of zinc were discovered there.

He found that although the tailings contained zinc, cadmium and copper, they were not the source of the contamination. It was later discovered that the high zinc and copper concentrations originated in a land-based waste rock dump that had leached metals into a creek.

Such land disposal can be dangerous because it exposes tailings to rain and oxygen. This allows certain types of bacteria to oxidize the material, creating sulphuric acid that leaches more metal from the waste and pollutes nearby lakes, streams and groundwater.

"If you accept that we are going to mine, then we should do it with a minimum of environmental damage. If the tailings dumps are carefully designed and if the conditions are right, then lakes may be a better place to put it," Pedersen said.

Researcher tries to encourage use of breast milk

By PAULA MARTIN

A UBC Nutritional Sciences professor is trying to improve on one of mother nature's most precious inventions, human breast milk.

"We have the technology and the know-how, but we have not done much to extend the existing supply of human milk," said Indrajit Desai.

"Our main objective is to extend the use of human milk and improve the nourishment and nutritional status of infants all around the world."

In Third World countries with high infant mortality rates, breast milk can mean the difference between life and death, he said.

Mother's milk reduces the incidence of allergies in infants, provides antibodies which help fight common childhood illnesses, is relatively safe, economical and widely available.

Desai and other researchers are investigating ways to freeze-dry breast milk and reconstitute it in different combinations, according to the needs of individual babies.

The milk, separated into various components such as fats, proteins, milk sugar and electrolytes, could be used to fortify milk for babies with specific needs.

"We want to prepare tailor-made, processed human milk," Desai said.

He and other researchers at UBC and the University of Sao Paulo in Brazil have also tackled problems associated with feeding banked milk, which is frozen and thawed, to premature babies who are often fed by tube.

Desai

"This system has some technological problems," Desai said. Valuable milk fat tends to stay behind in the feeding tube and often comes out in one big burst, which is difficult for babies with immature systems to digest.

Desai and his collaborators decided to find a way to break up these fat globules so babies can get all parts of the milk.

They developed an ultrasound treatment to homogenize milk and break up the fat globules into fine particles. This sound wave treatment not only prevents fat losses during delivery of milk to babies, but it also improves the digestibility of the milk.

The researchers tested a group of babies in Sao Paulo to determine the benefits to premature babies being fed ultrasonically homogenized milk.

"The babies, as we expected, gained better weight," Desai said.

THE UNIVERSITY OF BRITISH COLUMBIA

Library Review Committee Report: EXECUTIVE SUMMARY

OVERVIEW

While the full Report is too lengthy for wide distribution, the following overview may help to clarify the intent of the recommendations. Those who are interested may borrow a copy of the Report from the Librarian's office.

Collections Management and Development

The development of written collection policies **(Recommendation 2)** at which library materials are required to adequately support the instructional and research programmes of the University, and the general priorities for building and maintaining library collections appropriate to the academic programmes offered.

The process will include the establishment of guidelines for determining when duplication of serial titles is justified and will help to clarify those areas in which there may be overlapping interests among the various clienteles of the operational units of the Library. In preparing written policies, a great deal of consultation with faculty members and academic departments will be required. The process will take some time to complete.

The subsequent establishment of a Collections Management Committee **(Recommendation 3)** would provide the means to ensure that collection policies are understood and observed.

The Committee commented at some length on the rapid increase in cost of journal subscriptions. **(Recommendation 4)** In order to continue to hold a wide spectrum of major journals, libraries must "reduce to an absolute minimum the number of duplicate or multiple subscriptions to a journal held on a single campus. It is the Committee's belief that immediate convenience of access is not, in itself, a valid reason for duplication."

Noting that journal subscriptions are maintained to some extent in departmental libraries and reading rooms outside the jurisdiction of the UBC Library, the Committee suggested as well that the University should also consider whether it should allocate University resources to the maintenance of journal subscriptions in academic departments, when a current subscription in maintained by the Library.

The Committee recommends a "journal management programme" **(Recommendations 5-6)**, which would have the objectives of preventing more and more of the available funds from being committed to journal subscriptions at the expense of monograph purchasing; providing for the purchase of important new journals on a regular basis; avoiding interruptions in the purchase of new serial titles; and allowing differential cost increases of journals in the various disciplines to be identified.

Assigning priorities to all current journals will be a difficult task at UBC because of the number of titles received and cross-disciplinary interests, which make it harder to identify a given title with a single academic department. Objections can also be expected to the suggestion that very many titles can be labelled "expendable".

Working within the limitations of anticipated funding, however, some means must be found to allow the journal collection to grow in the directions required by changes in University priorities.

The Report notes the trend at most university libraries towards the expenditure of an increasing proportion of the collections budget on journals, to the detriment of monograph purchases **(Recommendation 7)**. The distribution of expenditures between serials and monographs was considered at length by Senate at UBC several years ago. The Senate Library Committee has been regularly informed of the relative annual expenditure for journals and monographs. The Review Committee suggests that the matter will require continued attention.

The Report suggests that "A non-circulating policy for journals has the long-term potential for improved availability and tangible savings". **(Recommendation 12)** It cautions, however, that the "change must not be proposed without the assurance of firm academic and administrative support in formal bodies, such as the Senate and the Committee of Deans...". The recommendation is made in the belief that "anchoring all journals will improve access to this literature, streamline library operations, and facilitate the reduction of duplicate subscriptions". Increasing the number of self-service photocopiers in most locations is a necessary prerequisite to anchoring journals. (Not mentioned in the Report is the need for increased reader space for on-site use of journals, preferably enclosed with separate security control to prevent current issues from being removed for use elsewhere in the building.)

In comparing statistics for UBC, Alberta, Toronto, and McGill, the Committee noted that UBC alone has reported declining expenditures for salaries in the Library in each of the last four years. In comparison with other large, decentralized research libraries, the UBC Library is presently devoting proportionately more of its total funding to collections than its peers. The Committee believes that continued transfer of monies from the Library salary budget into the collections budget may have a deleterious effect. **(Recommendation 8)**

The separation of the collections budget from the rest of the Library operating budget follows from this and would permit decisions about collections funding to be made in the light of overall University priorities. The Committee notes "that the acquisitions budget of the Library is different from the budgets allocated to the Faculties in one important respect: the Library does not develop the collections in its own interests, but in the interests of providing strong support to the whole academic enterprise".

It is of crucial importance that an effective mechanism be in place to assess the library implications of proposals for new academic programmes and research interests. **(Recommendation 9)**

Library Technology and Systems Development

The need for a large increase in the number of terminals and related support for the online catalogue is noted. A full online catalogue will improve access and create benefits throughout the University and the Province. The UBC Library is lagging behind its peer institutions in this respect. **(Recommendation 10)**

UBC Library systems staff are commended for making it possible to continue to use the circulation system introduced in the mid-1960's. A new circulation system, based on bar-code technology and linked to the online catalogue, is urgently required. **(Recommendation 11)**

The adoption and integration of new information technologies will require significant increased expenditures on both a capital and a continuing basis. **(Recommendation 15)** This imposes a need to determine the basis on which service charges will be assessed in future.

After a superficial review of the advantages of in-house systems development versus the purchase of turnkey systems, the Committee decided that a careful decision should be made at an early date while both options are still possible. **(Recommendation 16)** The Report agrees that the UBC Library is in a unique position because it has a wealth of systems expertise already at hand, but is concerned about relative costs and the magnitude of the task if local development is pursued.

Library Services

The Report commends the Library for the high level of satisfaction expressed by faculty members in response to enquiries about the quality of its reference services. It expresses concern that opportunities for the creation of new services may be missed in favour of retaining the status quo (in an environment of restraint). **(Recommendation 13)** Reviewing existing services and articulating priorities may release funds that could be used to implement new information technologies.

The proposed configuration of services in a new building on the former bookstore site is supported as a move towards greater centralization of services. Small branch and departmental libraries should not be maintained because of the additional costs for staff and duplication of books and journals. **(Recommendation 14)**

The Committee was impressed by the "strong commitment of service to the entire community of British Columbia" that was evident throughout the library staff. **(Recommendations 22-23)** Representatives of the institutions that were the recipients of such services were uniformly appreciative of the UBC Library role and saw it as one of the most important components of provincial library service.

Attempts to define and recognize formally this role have failed, as have efforts to obtain provincial funding for these services. "The result is a natural tension between and among external demands and the expectations of the Library's primary clientele, the faculty, students, and staff of the University. The very admirable service orientation of the UBC Library staff clearly extends to both types of clientele, thus overextending human and financial resources in a period of severe fiscal restraint."

The Committee concluded that it is "urgent that the provision of external services be based on conscious decisions of resource allocation, that the true costs be recognized, and that renewed efforts toward provincial recognition and funding of these roles, if they are to continue, be achieved."

Past attempts to establish comprehensive union lists for the entire province were noted. **(Recommendation 24)** Major institutions (including SFU, University of Victoria, and the Vancouver Public Library) must work together to develop easy electronic links between their various databases so that programmes of resource sharing can develop economically and equitably. Considerable mutual benefit may also derive from further development of existing links with research libraries such as the University of Washington and the University of Alberta.

It seems likely that the Committee was primarily concerned with the high cost per user of the services provided through the Crane Library and with the possibility that alternative or additional sources of funding are required. **(Recommendation 25)**.

Management and Related Issues:

The Committee observed that the Library is perceived to be expensive, but that some of the costs may be attributed to factors that are "unusual if not unique" in the UBC Library. **(Recommendation 1)** Examples mentioned include the unusually high degree of external services to the Province and beyond, the provision of ID card services to the entire University, the cost of a high volume of circulation, etc. The lack of clear and concise management information and especially the absence of good analytical data on the cost of various operations makes planning and decision-making difficult.

The Committee "is of the opinion that to the extent that the Library has undertaken strategic planning, the effort has been more reactive than proactive". **(Recommendation 17)** With constraints on resources, the Library has found it increasingly difficult to allocate resources to the gathering and synthesis of management information, tending to keep resources "at the front line," rather than divert them to less visible - and less understood - purposes." A strategic planning capability is needed, for example, to prepare an inventory showing the life expectancy/obsolescence of equipment essential to the use of the collections and to identify needed equipment in the context of changing technology and publishing formats.

The Report suggests that the working relationship between the Library and the Senate Library Committee has been too close and would be improved with clearer differentiation between the roles and responsibilities of both the Senate Library Committee and the University Librarian. **(Recommendation 18)** It also recommends a more formal linkage between the Senate Library Committee and the various user committees established for UBC branch libraries to ensure that all parts of the campus may have their views represented.

"The Review Committee also believes that Library planning must be more strongly and formally integrated with academic planning....The Committee does not believe that this integration can arise solely from informal relationships." **(Recommendation 19)**

The Committee noted that UBC's Library staff complement had declined over the past four years, while staffing at Alberta, Toronto and McGill libraries has increased. UBC has a higher proportion of professional librarians and very low turnover among its professional staff. As opportunities occur within the next ten years or so as many staff reach normal retirement age, planning for the skills and qualities that will be required in future should be in place. **(Recommendation 20)**

Turnover among support staff is much higher. Continuing implementation of technology combined with frequent staff movement require a well-planned, systematic central training programme. **(Recommendation 21)**

People

Papke named to Alumni post

The Alumni Association has named **Agnes Papke** its new Program Director.

Papke

Papke, the association's Agricultural Science Coordinator for the past two years, graduated from UBC in 1966 and has also worked with the Faculty of Agricultural Sciences.

As Program Director, she will be responsible for the day-to-day management of the Program Department. The Branches Program supports ties with alumni groups throughout Canada, the United States and abroad. The Divisions Program supports links with alumni divisions which consist of graduates in the Lower Mainland who share similar interests, such as a faculty or sports team. Papke will also work on committees to organize class reunions, present alumni awards, maintain university traditions and foster relations with students.

Vancouver city council has reappointed **Setty Pendakur**, a professor in the School of Community and Regional Planning, to a two-year term as a director of the Vancouver Public Library.

Pendakur, who teaches transportation planning, has already served a two-year term as one of 10 library directors. The Vancouver Public Library is now working on a multi-million dollar project to define its direction in the 21st century.

Political science student **Mike Lee** has been elected President of the Alma Mater Society in recent elections.

Hicks

Other students elected to the executive are: **Sarah Mair**, Arts, Vice-President; **Karl Kottmeier**, Arts, Director of Finance (re-elected); **Andrew Hicks**, Arts, Director of Administration; and **Vanessa Geary**, Arts, Co-ordinator of External Affairs.

The new executive takes office at the Annual General Meeting, Feb. 14.

Outgoing AMS President, **Tim Bird**, Education, has been elected student representive to the university's Board of Governors. He is joined by **Kurt Preinsperg,** a doctoral candidate in Philosophy.

Student representatives join the board Feb. 1 and serve a one-year term.

The following have been elected student faculty representatives to UBC's Senate:

Geoff Porter, Applied Science; **Joanna Harrington**, Arts; **Wendy Fox**, Pharmaceutical Sciences; and **Reg Peters**, Science (re-elected).

Geary

Elected by acclamation were: **Harriet Cowan**, Agricultural Sciences (re-elected); **Al-Karim Haji**, Commerce and Business Administration (re-elected); **Janet Thom**, Dentistry; **Brian Goehring**, Graduate Studies (re-elected); **Cosmos Vanwermeskerken**, Law; and **Dan Horvat**, Medicine.

Megan Loeb is eligible to continue as student senator for the Faculty of Forestry as there were no other nominees. The student senator position for the Faculty of Education remains vacant.

Elected as members-at-large were: **Tony Fogarassy**, Geological Sciences (re-elected); **Tom Kaweski**, Arts; **Wendy King**, Arts; **Michael Libby**, Arts; **Derek Pettingale** (re-elected), Commerce and Business Administration.

Student representatives on Senate serve a one-year term effective April 1.

Dr. Richard Finley has been appointed head of the Department of Surgery in the Faculty of Medicine.

Dr. Finley was an Associate Professor of Surgery at the University of Western Ontario and Chief of Surgery at the university-affiliated Victoria Hospital.

The Faculty of Medicine also has a new Director of the School of Audiology and Speech Sciences, **Dr. Judith Johnston**. Dr. Johnston was an Associate Professor in the Department of Speech and Hearing Sciences and an Affiliated Associate Professor in the Department of Psychology at Indiana University in Bloomington, Ind.

Guy Lucas has been appointed general manager of the UBC Faculty Club. Lucas managed the McGill University Faculty Club in Montreal and was a food and beverage manager with Hilton Hotels in Montreal.

He was born in Tanganyika and took his formal training at the Hotel School in Nice, France.

Lucas' first project will be the development of a 10-year plan for the Faculty Club.

Grazing vs. timber debate is heading for a solution

By PAULA MARTIN

A UBC plant scientist hopes to settle a long-running debate about whether cattle grazing on clearcut forest sites hinder the healthy growth of newly planted trees.

"I think it has been one of the most controversial topics in terms of livestock and timber. There are strong feelings on both sides of the issue," said Michael Pitt, a range ecology and management specialist.

Pitt is trying to assess the impact of cattle trampling and forage seeding on reforestation programs in B.C. at two sites in the Kamloops forest region.

"What we're really after is to optimize integrated use of livestock and timber production on Crown land. From the provincial perspective, grazing on clearcuts enhances multiple use and combined return on Crown land."

Foresters contend that cattle impede reforestation efforts on clearcut sites by chewing and trampling the newly planted trees.

"There are those who say that they would prefer to see livestock excluded from the area until the trees have reached the so-called 'free-to-grow' stage, and that's usually when they're up around five feet tall," Pitt said.

On the other hand, ranchers and government agriculture experts say forage production is highest when the clearcut sites are first seeded with domestic grasses.

"Grazing of these grasses by livestock may enhance tree production by reducing competition from the grass," Pitt noted.

"It's easy to sympathize with the foresters, seeing some of their trees damaged by livestock. But it is our personal belief that where this damage occurs, it is because of poor livestock management, rather than the impossibility of compatibility," he said.

The provincial and federal governments are concerned about the failure to regenerate many clearcut sites in B.C., Pitt explained. Too many areas have not been satisfactorily restocked with trees within the required period of time.

Timber companies are concerned about damage to trees since they are responsible for regenerating clearcut sites under provincial forest management strategy, Pitt said.

"I think there is the potential for intensification of conflict and incompatibility of resources if we are not able to provide some suggestions on how compatibility can be achieved."

Pitt is researching the effects of cattle grazing and seeding rates on softwood survival and growth, and examining the effects of scarring and shoot damage on lodgepole pine survival and growth at the research sites.

Baseball players subject of UBC dentist's study

By GREG DICKSON

Smokeless tobacco users may face an increased risk of oral cancer and other health problems, a study of professional baseball players concludes.

UBC Dean of Dentistry Dr. Paul Robertson, who wrote the report, says initial findings indicate smokeless tobacco use may also contribute to a variety of vascular diseases and foster nicotine addiction.

"Smokeless tobacco is as dangerous as smoking in terms of addiction," he said.

Dr. Robertson and a team of investigators from the University of California conducted the initial investigation during 1988 spring training in Arizona. About 1,100 players on seven Major and Minor league teams were examined.

"Baseball players are the highest users of smokeless tobacco," said Dr. Robertson. "About 60 to 70 per cent of Major and Minor league team members are smokeless tobacco users."

Until now, there has been no extensive study of the habit. But isolated case studies indicated users sufferred from a variety of problems such as receding gums, lesions on cheek and gum tissue, and nicotine dependence.

There are also indications that the habit may contribute to such vascular diseases as hypertension.

The research team will return to spring training camps in Phoenix on Feb. 22 to do follow-up examinations and look at other players and staff.

All examinations are done in team locker rooms using portable equipment. A staff of dentists, physicians, epidemiologists and sociologists conduct a battery of tests including physical and oral examinations, and blood tests.

Last season's examinations provided researchers with interesting insights into the thinking of the players.

"Baseball players are very superstitious," said Dr. Robertson. "So you have to be very careful not to make any remarks about whether smokeless tobacco helps or doesn't help their performance."

Researchers also offer players assistance in quitting the habit. The program is run in cooperation with training staff and experts at the University of California.

Derek Burney (left), Canada's Ambassador to the United States and UBC President David Strangway chat at aWashington reception to announce the establishment of The American Foundation for UBC. (See story Page 1.)

Video fax tested for remote villages

By GREG DICKSON

UBC's Department of Biomedical Communications is testing a new video communication system in the Northwest Territories that will ultimately bring better health care to over 50 remote communities.

The system, known as color video fax, transmits high resolution video and audio signals between nurse-practitioners in the far north and hospitals in Yellowknife and Vancouver.

"There is no loss of quality between the camera image and what you see at the receiving end because it uses digital rather than analog technology," said department director Ian Cameron.

The images are so good that nurses can transmit live images of patients for dermatology examinations or send x-rays for immediate analysis.

"Right now, patients are often sent to Yellowknife by medivac flight and that can cost between $5,000 and $25,000 a flight," said Cameron. "With the color video fax system, the diagnosis could be done remotely saving thousands of dollars."

Initial testing was done earlier this month between Cambridge Bay in the Central Arctic and Vancouver. Cameron says health care officials hope to expand to six other communities in the Central Arctic this year. Ultimately 54 northern communities will be connected with hospitals in Yellowknife, Edmonton and Vancouver.

Chicken death mystery costs farmers $80 million

By PAULA MARTIN

A UBC scientist, who is investigating why apparently healthy broiler chickens keel over and die, says the answer may one day shed light on the baffling Sudden Infant Death Syndrome in babies.

About eight million broiler chickens die from Sudden Death Syndrome (SDS) each year in Canada, costing producers more than $80-million, said Robert Blair, head of UBC's Department of Animal Science.

The cause of SDS has baffled scientists around the world for many years. It often hits healthy, male chickens between three and four weeks of age.

"You go into your flock and everything's fine. Five minutes later you find some of them lying on their backs, dead. They don't linger, or waste away," Blair said.

Although there are no marks on the birds, lung congestion and evidence of irregular heartbeats are sometimes discovered, he added.

"We assume that the cause of death is heart attack, but it seems to be precipitated by some respiratory distress just before they die."

Blair believes scientists may find the answer to the unexplained deaths in the birds' diet and is looking at factors related to it.

He conducted a series of experiments -- involving about 10,000 chickens -- which showed that those with diets containing meat meal had about half the mortality rate of chickens eating diets of soybean.

Blair is also interested in the respiratory distress the chickens experience in the minute preceding their deaths.

"We're now considering the implications of that. What is going wrong with the chicken? Why does it start gasping for breath?"

The syndrome has parallels with Sudden Infant Death Syndrome. There is sudden or crib death in sleeping babies, while SDS hits chickens that are awake. Both affect more males than females.

"Many of these children have respiratory problems before they die, so certainly we've got that connection," Blair said.

"No doubt whatever we found would be looked on with interest by medical researchers. I don't know whether it is the same condition or not, but certainly there are similarities."

"Obviously, from an ethical point of view, we're able to conduct a wider series of studies than can be done with children," he added.

Blair is working in collaboration with scientist Earl Gardiner at Agriculture Canada's Research Station at Agassiz. The research is being funded by the B.C. Chicken Marketing Board and the Alberta Farming for the Future fund.

Assessment failure

Expensive robots stand idle

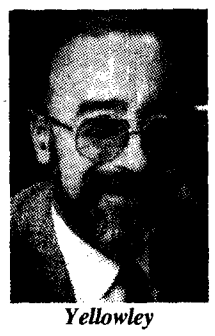
By JO MOSS

Expensive, industrial robots are standing idle in Canadian factories because companies are failing to assess their automation needs adequately.

Mechanical Engineering professor Ian Yellowley, an expert in low-cost, flexible manufacturing technology, says he has seen more unsuccessful attempts at automation than he can count.

Technology for plant automation must be chosen carefully, he says, and modified to fit each company's specialized needs. High-priced, sophisticated robots may be touted as the latest technological answer to an array of manufacturing problems, but they aren't always the best choice for a particular task.

Ten years ago, as a consultant to Westinghouse, Yellowley helped design a new plant in Renfrew, Ont. that is still considered one of the most innovative automated plants in Canada and one of the most modern worldwide.



Yellowley

The plant was equipped with flexible and highly automated machinery and the necessary control and communication systems. Such technologies can meet Canada's inherent manufacturing problems unique to countries with small economies--small production volume and a wide variety of products, Yellowley says.

Producing a variety of products means machines have to be reprogrammed to different specifics at regular intervals to cope with widely different products and volume requirements. That set-up time is non-productive and costs companies money. Highly automated Japanese industries have reduced set-up times to a tenth or a twentieth of the time in comparable North American processes, Yellowley said.

"The very best systems allow you to minimize the time spent in setting up machine tools by capitalizing on the similarities between parts," he explained. "Instead of resetting the whole machine, you only reset those parts which are necessary.

"The use of soft automation and detailed initial planning of processes, equipment and associated support systems has a major impact in reducing the non-productive time."

Despite the example of Westinghouse's plant, which opened in 1982, Canadian companies have been slow to automate fully. And automation technology in Canadian manufacturing lags far behind Japanese advances.

Yellowley warns firms that they can't afford to be technology shy any longer.

Lack of top-of-the-line automation equipment combined with high labor costs translates to low productivity and high overall product costs. That situation puts Canadian manufacturing at an increasing competitive disadvantage, he said.

"It's a problem. It's like sending people to war with pitchforks," Yellowley said.

4 simple principles sum up the advice in self-help books

By GAVIN WILSON

Self-help books claim to have answers for everything from marriage woes to career success. But despite their proliferation in recent years, all their advice can be summed up by four simple principles.

This is the conclusion of research conducted by students under the direction of Stephen Marks, associate professor in the Department of Counselling Psychology.

Over the course of 10 years, Marks had his students review about 900 self-help books as a class project. Looking beyond the content of each book, several underlying principles emerged.

Marks found that despite the wide variety of approaches and topics, all self-help books contained four basic ideas.

The first principle is that people who are active in their thoughts, behavior and feelings are healthier than those who are passive.

The second deals with orientation. People who recognize and accept reality have more success with life than those who are oriented toward fantasy.

"Healthier people have both feet planted firmly on the ground. They deal with the world as it is, rather than as they would like it to be," said Marks.

The third component is attitude. Having a positive attitude towards life makes for greater happiness than having a negative outlook.

"People who see the world as a bowl of cherries --rather than as a bowl of cherry pits -- tend to be happier and healthier," he said.

The fourth principle adds an ethical and moral dimension to the equation. People who are most content are those who behave ethically, having regard for the rights of others.

"Of course, there's absolutely nothing new or astounding or revolutionary in these four principles," Marks said. "But what self-help books do is take the principles, in various combinations and permutations, and apply them to specific content areas: career, separation, relationships, alcoholism, eating disorders, time management, self awareness or whatever."

But if it is all so simple, why do bookstore shelves groan under the weight of self-help titles? Marks believes the tremendous appeal of self-help books stems from two motivating factors.

For some, these books offer the promise of a quick-fix solution to life's complex problems. But on the positive side, the books reflect a tremendous interest in self-development and self-improvement, and a new emphasis on individual responsibility.

"People are taking the initiative in trying to better themselves and their positions," Marks said.

Robert Silverman and doctoral student Kristina Sutor are two of the pianists playing in the School of Music Pianothon on Feb. 25 -26 at the Arts Club Theatre on Granville Island.

Pianothon set to raise funds for instruments

By GAVIN WILSON

A weekend marathon of piano playing by faculty and students of the School of Music is highlighting efforts to raise funds to replace aging instruments.

The pianothon, which will feature some of the faculty's best-known pianists, will be held Feb. 25 and 26 at the Arts Club Theatre on Granville Island.

The aim is to raise awareness of the need to replace old practice pianos with 10 new grand pianos.

The school's piano division, considered to be the best in Canada, attracts students from around the world, but its pianos are woefully inadequate, said spokesperson Lauren Arffa.

Currently, about 50 piano students vie for practice time on four aging grand pianos and a handful of old upright pianos, which are poor substitutes for the grands used in performance.

"A piano isn't like a Stradivarius violin, it doesn't get better as it gets older," said Arffa. "Because there are so many moving parts that wear out, the pianos reach a point where they're not worth repairing anymore."

Admission to the pianothon is by daily drop-in fee of $5. Patrons are welcome to come and go as they please during the day, and organizers are hoping to attract crowds from the nearby Granville Island market. Hours on both Saturday and Sunday are 10 a.m. to 4 p.m.

Highlight of the weekend is a gala concert at 8 p.m. Sunday which features School of Music pianists Robert Silverman, Jane Coop, Robert Rogers and Rena Sharon. Tickets for this concert are $10 and are available at VTC-CBO outlets.

Better social skills needed in abuse cases

By PAULA MARTIN

Non-offending parents in families where pre-school children are abused need to learn better social skills, says a UBC social work professor.

"Non-offending parents have been ignored to a large extent," said Madeline Lovell, who is directing the Social Support Training Project.

"This is designed to train them in the kinds of interpersonal skills that they need to build social support networks. A lot of these people have grown up themselves in very abusive family situations. They just never had the opportunity to learn."

Strong support from family, friends and professionals is vital because it helps people maintain the changes they are trying to make in their lives through counselling and therapy, she said.

Lovell said you can teach people to parent better, or even in the case of sexual abuse, to protect their children better.

"But is seems that when you're asking people to make really difficult behavioral changes, you've got to make sure that they've got the social-support to enhance that," she said.

Many of the non-offending parents -- most of whom are women -- were abused as children. They don't trust people and have difficulty making friends, Lovell said.

She said that learning how to develop these kinds of skills is only one part of all the services that these people need to change their lives.

"Our premise is that skills don't solve everything, but if you don't have skills, you're really at a loss, at a disadvantage," Lovell said.

The 50 participants will be taught how to define relationships and how to protect themselves.

"We will talk about danger signs in relationships and in other people," Lovell said. As well, the participants will receive assertiveness training.

The parents in the training project are already involved in Vancouver-area programs for families deemed at high risk for child abuse -- Project Parent West, run by the Family Services of Greater Vancouver and Project Parent East, run by West Coast PREP.

The joint university-community project will begin in January and run for 18 months. It is being funded by a $90,000 grant from Health and Welfare Canada.

New UBC method may eliminate dioxins in production of paper

By JO MOSS

Chemical Engineering professor Kenneth Pinder may be able to help B.C. pulp and paper companies eliminate a controversial chlorine bleaching process that produces the deadly chemical compounds--dioxins.

Pinder is conducting tests on a new and cheaper method of producing chlorine dioxide, another bleaching chemical.

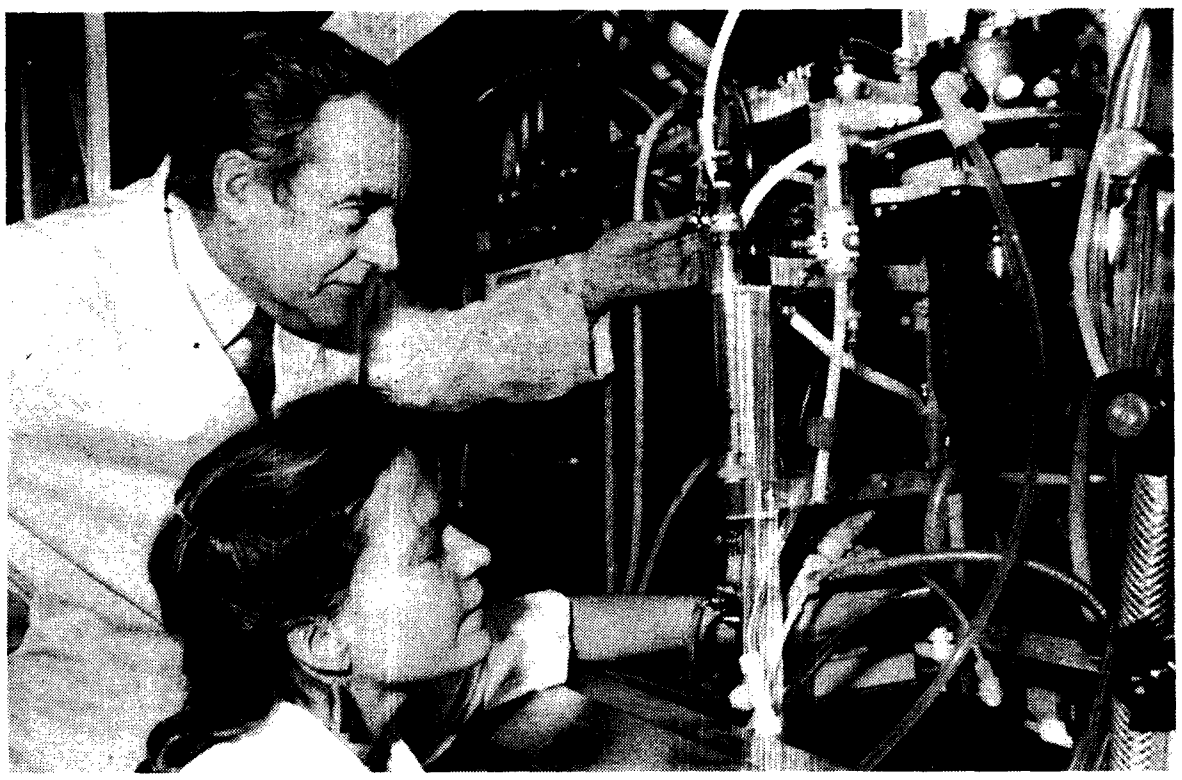
Both chlorine and chlorine dioxide are commonly used in pulp bleaching, but chlorine has recently come under attack because it's been found to release dioxins as a byproduct.

The new process could be an economical way to lower chlorine use to acceptable levels by using more chlorine dioxide and less chlorine, Pinder said.

If tests at the pilot plant in the Pulp and Paper Centre on campus are successful, the technology could be commercially available to industry within two years.

Dioxins are highly toxic substances released into the environment by many manufacturing processes, including kraft processing methods used by B.C.'s paper mills. Absorbed by living organisms in the food chain, they have been linked to coronary disease and cancer in humans.

"Dioxins occur not only in what is thrown out of the mill as waste, but also in the end product, the paper," explained Pinder who holds an adjunct position with Paprican, the pulp and paper industry's research arm located at UBC. "We realize the chlorine stage in the pulp bleaching process is critical--that's where the dioxins are produced."



Chemical Engineering professor Kenneth Pinder and research engineer Susan Nesbit work on a pilot plant in the Pulp and Paper Research Centre. They are testing a new pulp bleaching process for the B.C. industry.

B.C. paper mills are looking for ways to reduce the amount of dioxins released as byproducts in anticipation of provincial legislation limiting chlorine use in the industry.

Companies commonly use one of two chemicals, sulphur dioxide or methanol, in a complex reaction to manufacture chlorine dioxide. Pinder plans to replace those compounds with pure sulphur -- a previously untried procedure.

Initial results are promising, Pinder says, and have generated considerable interest from industry.

But he cautions that many questions remain to be answered before the technology can be transferred from the lab to the private sector. "This reaction is still unknown," Pinder explained. "There's a lot of routine analysis we have to do."

Research is currently being carried out under a one-year $67,000 B.C. Science Council Grant in collaboration with Multifibre Process Ltd., a New Westminster company which manufactures pulp processing equipment.

Once tests are completed, all indications point to quick adoption of the new technique by pulp and paper companies.

"I think the new process will drastically reduce the cost of bleaching for industry," Pinder said. "Companies will adopt it because it's cheaper than other processes and that will make it possible for them to eliminate dioxins entirely."

As a side benefit, the process also promises to rid the industry of puffs -- mini-explosions caused by adverse chemical reactions during processing. Sulphur seems to be far less volatile than other chemicals currently in use.

Let elderly control their own lives, professors urge

By GAVIN WILSON

The elderly should have more control over their lives, say the editors of a new book about aging and ethical questions published by UBC Press.

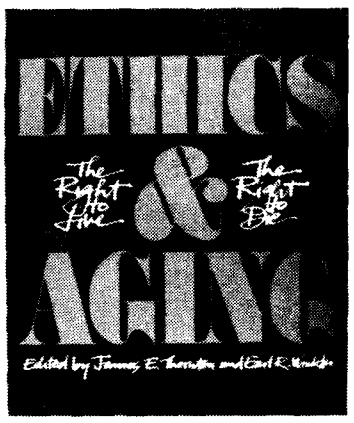
UBC professors James Thornton and Earl Winkler say that too often the elderly are forced to be dependent on others -- family members, health-care workers and other professionals -- when they are still capable of making their own decisions.

"The elderly's right to be at risk must be maintained. They must be able to say: 'This is my life and I have the right to live it the way I want to live it,'" said Thornton, an assistant professor of education and chairman of the university's committee on gerontology.

Thornton and Winkler are the editors of Ethics and Aging: The Right to Live, the Right to Die, a collection of articles that tackles the issues of aging from many viewpoints including law, medicine, philosophy, psychology sociology and economics.

Many of the authors stress that the elderly need to see themselves as active participants in the world around them, not isolated from the communities to which they have contributed for many years.

"There's a lot of evidence that the actual processes of aging are affected by the way an individual thinks about himself or herself and about getting old," said Winkler, an associate professor of philosophy.



Different types of social programs are needed to help the elderly achieve this independence and control, said Thornton. For example, there could be more creative involvement of the elderly in innovative community-based programs.

Among the authors contributing to Ethics and Aging are two other UBC faculty members: law professor Donald MacDougall and Beverly Burnside, who holds an honorary research associate appointment in the Department of Health Care and Epidemiology.

MacDougall, a specialist in family law, is in the midst of a major study on how well current laws and the legal system serve B.C. seniors.

Burnside examines the ethical issues arising from social science research on the elderly. She concludes that the elderly should become equal partners with researchers.

Transit study

Too much noise from SkyTrain

By PAULA MARTIN

Transit planners should keep their ears to the ground when they design extensions to Vancouver's SkyTrain route, says a UBC professor who concluded noise from the transit system exceeds acceptable levels in some areas.

"Planning must include noise protection for residents," said Setty Pendakur, a transportation planning professor who has studied the problem.

"It is easy to predict how much noise this technology is generating. It is also possible to define where the noise levels are expected to exceed community environmental standards."

Pendakur's two-year study, which he presented to the Transportation Research Board in Washington, D.C. last month, concluded that the automated light rail transit (ALRT) system produced noise levels that exceeded the acceptable community environmental standards established by the Canada Mortgage and Housing Corp.

The guidelines say that a noise level of 55 decibels or more is unacceptable in a residential area.

Pendakur studied the Broadway Station area, which has a mix of apartments, duplexes, single family residences and commercial activity, and the Nanaimo Station area, which consists primarily of single family dwellings.

He calculated noise levels in these neighborhoods, established zones of high and low noise impact and analyzed residents' perceptions of noise.

Pendakur found that in high impact areas, residents' perceived noise levels were consistent with measured noise levels. Even in low impact zones -- where the noise level didn't exceed the guidelines -- the perceived levels were substantially higher than measured noise levels, especially in larger households.

SkyTrain noise, whether real or perceived, was an additional aggravation to residents who were already upset about the way the provincial government handled construction of the three-year-old regional transit line, he said.

"Unfortunately, Vancouver's ALRT system was built without much citizen involvement in the planning process. Ultimately B.C.'s Ombudsman had to intervene on their behalf," Pendakur said.

"What is important is to involve citizens in planning, as well as mitigate noise as part of the design. Successful transportation planning and implementation depends upon the planner understanding the citizens and their concerns, and respecting long-term environmental quality."

Pendakur said that transit workers are now grinding the SkyTrain's wheels to reduce the noise produced by wheel and rail interaction.

Planners should also be taking other measures to lessen the noise such as putting up solid fences, he said, adding that B.C. Transit should be obligated to compensate residents who are adversely affected by ALRT noise.

New meningitis vaccine is proving successful

Canada's first Vaccine Evaluation Centre has made significant progress toward eradicating meningitis.

A new vaccine against Hemophilus influenzal infections, which include meningitis, tested by researchers at the UBC centre, has performed well on 5,000 Lower Mainland children. The B.C. Ministry of Health will supply the vaccine for children throughout the province aged 18 months to two years, said Dr. David Scheifele, director of the centre.

"Meningitis is the leading cause of acquired mental retardation and acquired deafness," said Dr. Scheifele. "While it doesn't appear in every neighborhood or in every extended family, there are more than 75 children in B.C. who suffer serious infections with the Hemophilus organisms every year. The death rate remains at about five per cent."

While researchers are encouraged by the vaccine results on 18-month-old children, more than half the cases of meningitis occur before children reach that age, he said.

Therefore, the second phase of the study will focus on two-four-and six-month-old infants.

"If we can move the program into the first six months of life, then we are hoping to prevent virtually the whole problem," said Dr. Scheifele.

The Vaccine Evaluation Centre, which opened Oct. 1 at Children's Hospital, is the first of its kind in Canada to bring together a group of experts to design and conduct evaluations of current and new vaccines.

Researchers also are preparing a study for the federal government to test the effects of DPT (diphtheria/pertussis/tetanus) vaccine on pre-school children.

'Smart' computer program helps prepare database

By JO MOSS

Setting up a computer database system can be a formidable task for a company, but now a new 'smart' computer program developed at UBC will make the job easier.

No computer expertise is necessary to operate this program. In fact, the process is as simple as an employee sitting down at a terminal and describing what the work involves.

Called the View Creation System, the program draws up the specs of what will be necessary in a company database system based on an "interview" with the employee.

By "talking" to the user, the program tries to understand what he or she needs out of the database, and then describes that information in a form a computer can understand.

The 'smart' program was designed from the ground up in just a year by Commerce professor Robert Goldstein and former graduate student Veda Storey, who is currently a professor in the University of Rochester's business school. It recently won a major international award for its innovative application of artificial intelligence.

"One of the standard ways of designing a database for an organization is to collect these views -- small images of individual groups' needs -- and then somehow put them all together," Goldstein explained.

"If someone is concerned with payroll, for example, the program provides a view of the database containing what they would need to know to do payroll, and nothing else."

Databases are shared collections of information which encompass whole organizations and that's what makes designing them so difficult.

"The larger a company gets, the more difficult it is for any human being to actually have a grasp of all of the data requirements," Goldstein said. "That's where the notion of the View Creation System becomes useful."

Small or medium-sized companies which don't have a database specialist on staff stand to benefit the most from the new program, he said.

Designing databases is a complex technical speciality which requires a human programmer to have a great deal of experience. For a program like Goldstein's and Storey's to be useful, it has to have comparable expertise.

"That's an important feature of systems like this. If they don't have real expertise in them, they aren't going to do the job properly," Goldstein explained.

What makes the View Creation System so useful is that it has the built-in intuition of human database designers. With the combined experience of these human experts, the View Creation System can apply rules of thumb as well as hard and fast procedures.

In fact, Goldstein said when he watches the program working, he can't always guess what it is going to do.

Transplant revolution imminent, MD says

By GREG DICKSON

British Columbia will undergo a revolution in organ transplants in the next two years, predicts the UBC doctor who heads the province's transplant program.

Dr. Paul Keown, director of the B.C. Transplant Society, predicts B.C.'s first combination heart and lung transplant could be performed in the next few weeks. Dr. Keown also hopes that pancreas transplants for diabetes will be possible starting after April. The comments were made during a Vancouver Institute lecture at the university.

B.C.'s first heart transplant was performed in December at Vancouver General Hospital. Lorne Beecroft, a 60-year-old helicopter pilot from Ladner, returned home this month.

The transplant program has an annual budget of $3.7- million. Ultimately, Dr. Keown hopes British Columbians will be able to stay in the province for all kinds of transplant operations.

Keown

"My objective in establishing the transplant society was to halt the foreign aid to Ontario and the U.S.A.," Dr. Keown said.

The province already has one of Canada's leading kidney transplant programs. Dr. Keown says it has gone from being one of the worst in the nation to being the best in just a few years.

Transplant costs are still high. Replacing a kidney costs about $35,000. The average combined heart and lung transplant costs over $120,000. Choosing who will get an operation under those circumstances isn't easy, Dr. Keown said.

Calendar

Continued from Page 7

Ecology-Resource Ecology Seminar
Siblicide and Lunch: Dark Deeds in Heron's Nests. Douglas Mock, U. of Oklahoma. For information call 228-4329. Room 2449, Biosciences Bldg. 4:30 p.m.

Microbiology Seminar
Beneficial Plant-Microbe Interactions. Dr. Paige Axelrood, Forest Biotechnology Centre, B.C. Research Corporation. For information call 228-6648. Room 201, Wesbrook Bldg. 12:30 p.m.

Geography Colloquium
Large Earthquakes in Southwestern British Columbia: A search of Geological Evidence of Past Events. John Clague, Geological Survey of Canada, Vancouver. For information call 228-2663. Room 201, Geography Bldg. 3:30 p.m.

CIL Chemistry Lecture
Scattering and Absorption of Infrared Radiation by Clusters. Prof. T.E. Goug, Chemistry Dept, U. of Waterloo. For information call 228-3266. Room 225, Chemistry Bldg. 2:30 p.m.

Social Work Colloquium
Intervention Roles in Child Sexual Abuse - Street Worker's Role. Margaret Michaud, Street Worker, Downtown East Side Youth Activities Society. Free. For further information call 228-2576. Lecture Hall A, School of Social Work. Noon-1 p.m.

THURSDAY, MAR. 9

Anthropology & Sociology Lecture
Our Friends, Our Heroes, Our Traitors. Dr. Robert Paine, Prof, The Institute of Social and Economic Research, Memorial U. of Newfoundland. For information call 228-2878. Room A202, Buchanan Bldg. 12:30 p.m.

Community & Regional Planning Lecture
Architect as Entrepreneur. Peter Wardle: President, Wardle Group. Projects Wardle has been involved with - New Westminster Quay, Burnaby Town Centre. For information call 228-3276. Room 107, Lasserre Bldg. 12:30 p.m.

Regent College Lecture
Who Turned Out the Lights? The Light of the Gospel in a Post-Enlightenment Culture. Dr. Brian Walsh, Senior Member, Institute for Christian Studies, Toronto. For information call 224-3245 local 321. Classroom A, Main Floor, Regent College. 12:30-1:30 p.m.

Women Students Panel Discussion
Biomedical Careers - trends and opportunities in biotechnology and medical careers. Dr. Virginia Diewert, UBC; Dr. Diane Herbst, Lab. Manager, Children's; Dr. Patricia Logan, Senior Scientist, NSERC, Industrial Research Quadra Logic Technologies. For information call 228-2747. Room #3, IRC Bldg. 12:30-2:20 p.m.

Physics Colloquium
Why is Rubber Solid. Dr. Nigel Goldenfeld, U. of Illinois. For information call 228-2136 or 228-3853. Room 201, Hennings Bldg. 4 p.m.

Language Education Research Colloquium
Recent Research on Preschool Language and the Development of Literacy - Piagetian and Vygotskyan Perspectives. Dr. Anthony Pellegrini, Institute for Behavioural Research, U. of George. Dr. Pellegrini is a noted authority on language development and play in young children. He is the author of numerous books and articles in this area. For information call 228-5232 or 228-5788. Room 105, Ponderosa E Bldg. 12:30-2 p.m.

CICSR Distinguished Lecture
Towards a Theory of Competitive Analysis for On-Line Algorithms. Dr. Allan Borodin, Dept. of Computer Science, U. of T. For information call 228-6894. Room 104, Henry Angus Bldg. 11:30 a.m.

Psychology Colloquium
An attributional Analysis of Perceptions of Responsibility. Dr. Bernard Weiner, UCLA. For information call 228-2755. Room 2510, Kenny Bldg. 4 p.m.

Women Students Lecture
How to Pass the E.C.T. Nancy C. Horsman. Free. For information call 228-2415. Room A100, Buchanan Bldg. 12:30-1:30 p.m.

English Colloquium
Madeline Unhoodwink'd: The Eve of St. Agnes as Romance. W. Stevenson, UBC. For information call 228-5122. Penthouse, Buchanan Bldg. 3:30 p.m.

FRIDAY, MAR. 10

Paediatrics Grand Rounds
Biliary Atresia. Dr. R. Schreiber, MRC Research Fellow, McGill U. For information call 875-2117. Auditorium, G.F. Strong Rehab Centre. 9 a.m.

Committee on Lectures Art History Lecture
Whose Spirit Is This? Some Questions About Modern Art. Edward J. Chamberlin, Prof. of English, U. of T. For information call 228-2757. Room 102, Lasserre Bldg. 12:30-1:30 p.m.

Festival of Indian Films
Khandhar (Bengali). Directed by Mimal Sen. Screening of recent feature films from India (with English subtitles). Free admission. Films courtesy of Consulate General of India. For information call 228-2746. Auditorium, Asian Centre. 7 p.m.

Anthropology and Sociology Seminar
Our Authorial Authority. Dr. Robert Paine, Prof, the Institute of Social and Economic Research, Memorial U. of Newfoundland. For information call 228-2878. Small Groups Lounge, AnSoc Bldg. 2:30 p.m.

Festival of Indian Films Seminar
When Do Films Transform People: Clips and Discussion of the Role of Indian Films in Indian Society. Dr. Satti Khann, U. of California, Berkeley. Free admission. Co-sponsored by Shastri Indo-Canadian Institute. For information call 228-2746. Auditorium, Asian Centre. 3:30-5 p.m.

Speech and Audiology Sciences Research Colloquium
The Development of Language and Literacy in Young Children. Dr. Anthony Pellegrini, Institute for Behavioural Research, U. of Georgia. Dr. Pellegrini is a noted authority in the area of child language development. For information call 228-5232 or 228-5788. Room #1, IRC Bldg. 12:30-1:30 p.m.

Medical Genetics Seminar
Molecular Genetics of Multiple Endocrine Neoplasia Type 2A (MEN-2A). Dr. Paul Goodfellow, UBC. For information call 228-5311. Room D308, Shaughnessy Hospital. 1 p.m.

Fisheries and Aquatic Science Seminar
Where Do All The Coho Go? The Biology of Coho Salmon During Their First Summer in the Ocean off Oregon and Washington. Dr. Bill Pearcy, Department of Oceanography, Oregon State U. For information call 228-4329. Room 2361, Biosciences Bldg. 3:30 p.m.

Chemical Engineering Seminar
Anchorage-Dependent Animal Cell Cultures. Ms. M. van Santen, Graduate Student. For information call 228-3238. Room 206, Chemical Engineering Bldg. 3:30 p.m.

Pharmaceutical Sciences Seminar
Role of Cyclic GMP in Control of Smooth Muscle Tension: Yin-Yang to Yin-Yin. Jack Diamond, UBC. For information call 228-2270. Room #3, IRC Bldg. 12:30 p.m.

Theoretical Chemistry Seminar
Relaxation of Molecules in a Molecular Solution: From Static Structure to Dynamic Properties. Dr. D. Wei, UBC. For information call 228-3299 or 228-3266. Room 225, Chemistry Bldg. 3:30 p.m.

VANCOUVER INSTITUTE

Saturday, March 4
The Insurance Crisis. Professor John Fleming, Faculty of Law, University of California (Berkeley).

Saturday, March 11
Our Failing Urban Infrastructure. Dean Gary Heinke, Faculty of Applied Science and Engineering, University of Toronto.

All lectures are in Lecture Hall #2, Woodward Instructional Resource Centre at 8:15 p.m. Free

NOTICES

Thunderbird Athletes
Mar. 2-5. CIAU (Canadian University Athletic Union) National Swim Championships to be held in the UBC Aquatic Centre. National and Olympic Team Swimmers are among the competitors. For information call Don Wells at 228-3918. All day.

Photographic Exhibition
Mar. 20-30. M-F 9-4:30 p.m., S/S 12-4:30 p.m. Jawaharlel Nehru: His Life and Times. Institute of Asian Research, UBC. Organized and sponsored by the Consulate General of India, Vancouver. Free admission. Tracing the life of Jawaharlel Nehru (1889-1964) the first Prime Minister of independent India. Produced by the Ministry of External Affairs, India, the exhibit is comprised of over 160 photographs.

Spanish Play
Mar. 9/10. La Heroica Villa by Carlos Amiches. Dialogue in Spanish. For information call 228-2268 or 228-5021. International House. 8 p.m.

Volunteers Needed
The on-campus information and referral service supported by the AMS needs student interviewers. Student interviewers are trained to help UBC students, staff and faculty find volunteer jobs in their area of interest. For an appointment to explore the available volunteer options contact the Student Counselling and Resource Centre, Brock Hall 20 or call 228-3811.

Continuing Ed. Workshop
4 Weds., Mar 1-Mar 22. 7:30-9:30 p.m. Stress Management for Diabetics: Coping with Psychological Complications. Dr. David M. Lawson, Clinical and Consulting Psychologist. Diabetics are confronted by many stressful situations in addition to the stress involved in the self-help regiment. This workshop will review coping strategies including assertiveness training, problem solving and relaxation techniques. Fee: $60. For information call 222-5238. Room B75/76, IRC Bldg.

Continuing Ed. Workshop
Sat/Sun, Mar. 11/12. 9-5:30 p.m. Communicating with Children and Teenagers. Dr. Arthur Ridgeway, Registered Psychologist. Fee: $116. For information call 222-5238. Room 2N, A&B, Health Sciences Psych. Unit.

Continuing Ed. Workshop
Sat/Sun, Mar 11/12. 10-6 p.m. Acupressure Massage I Energy Workshop. Dr. Danica Beggs, MD. Fee: $110. For information call 222-5238. Conf. Room, Carr Hall.

Musical Performances
Feb. 19-April 23. 2:30 p.m. The Museum of Anthropology presents a series of Sunday performances, entitled Musica Latina Caliente. For information call 228-5087. Great Hall, Museum of Anthropology.

Volunteers Needed
We are asking for women 19-60 years old to participate in a UBC research study investigating eye function in depressed patients and control volunteers. Volunteers must not have a past history or family history of depression. Volunteers would have retinal tests done at the VGH Eye Care Centre. The eye tests take about an hour of time and there is no discomfort with the testing. A $15 stipend is offered. For more information call Dr. R. Lam or Arlene Tompkins at 228-7325.

Volunteers Needed
Participants wanted immediately for a study of the effectiveness of different coping techniques for managing Public Speaking Anxiety. This is a 3-week training program, offered free through the Department of Psychology, UBC to persons who either avoid or feel very anxious in public speaking situations (e.g. class presentations; public lectures; group discussions). For further information call Aaron at 732-1931.

Tutors Needed
Tutoring Program at International House needs volunteer English tutors to help non-English speaking International students with their English. If interested, please pick up application form at International House. For information call Janise Yue/Hoang Nguyen at 228-5021. Room 1783 West Mall, International House.

Display/Photographic Exhibit
February 1989. Historic Hospitals of Europe, 1200-1981. An Exhibit of Photographs by Grace Goldin. For information call 228-4447. Memorial Room, Woodward Biomedical Library. 9-5 p.m.

Exhibition of Japanese Architecture
Until Mar. 12. M-F 9-4:30 p.m./S&S Noon-4:30 p.m. Ritual Renewal of Space in Kakunodate and Shiraiwa. Curated by Fred Thompson, Professor, School of Architecture, U. of Waterloo. This exhibit looks at the Japanese perception of public and private spaces, and explores the connections between the Japanese festival (o-matsuri) and Japanese architecture. For information call 228-2746. Auditorium, Asian Centre.

Continuing Ed Workshop
Sat. & Sun., Feb. 25/26. Intimacy: Developing Emotional Closeness. Dr. Arthur Ridgeway, Registered Psychologist. Fee $116. For information call 222-5238. Room 2N, A&B, Health Sciences Psych. Unit. 9-5:30 p.m.

Reading, Writing & Study Skills
Improve your reading speed and comprehension, composition, speech, study skills and vocabulary. The UBC Reading, Writing and Study Skills Centre is offering 19 non-credit courses this term, including Reading for Speed and Comprehension, Writing Business Letters and Memos, Writing Proposals, Robert's Rules--Demystified, Thinking and Communicating on Your Feet, Media Interview Techniques, ECT Workshops, as well as three correspondence courses. For registration information phone 222-5245.

Evening English Language Courses
Until Mar. 8, 1989. Mon & Wed. 7-9 p.m. Conversation skills, beginner to advanced. Speech fluency and pronunciation, advanced. $175 per course. For information call 222-5285. Room 109, 2062 West Mall Hut M-18.

Walter Gage Toastmasters
Wednesdays. Public Speaking Club Meeting. Speeches and tabletopics. Guests are welcome. For information call Sulan at 224-9976. Room 215, SUB. 7:30 p.m.

International House Language Exchange Program
Ongoing. Free service to match up people who want to exchange their language for another. For information call Mawele Shamaila, International House at 228-5021.

International House Language Bank Program
Free translation/interpretation services offered by International students and community in general. For information call Teresa Uyeno, International House at 228-5021.

International House
Fitness Classes are now $5 per term. For information call 228-5021.

Native Expressions
Every Tues. night at the Extra Extra Bistro, 3347 West Broadway, from 8-10:30 p.m. $3 at the door. Native performers and creative artist on stage. For information call Kathy at 222-8940. Proceeds to First Nations' Student Fund.

Special Issue on Africa and the French Caribbean
Contemporary French Civilization is preparing a special issue on Francophone Africa and the Caribbean for 1989. Articles in English or French, 15-20 typed pages, on any contemporary culture/civilization topic in Africa or the Caribbean, must be submitted by March 1, 1989. For more information call Dr. Claude Bouygues, 228-2879.

Department of Psychology
Individuals 18 and older are needed for a research project on changes in memory across the adult life span. For information call Jo Ann Miller at 228-4772.

Parents Wanted
Couples with children between the ages of 5 and 12 are wanted for a project studying parenting. Participation involves the mother and father discussing common child-rearing problems and completing questionnaires concerning several aspects of family life. Participation will take about one hour. Evening appointments can be arranged. Interpretation of questionnaire is available on request. For further information, please contact Dr. C. Johnston, Clinical Psychology, UBC at 228-6771.

Teaching Kids to Share
Mothers with 2 children between 2 1/2 and 6 years of age are invited to participate in a free parent-education program being evaluated in the Dept. of Psychology at UBC. The 5-session program offers child development info and positive parenting strategies designed to help parents guide their children in the development of sharing and cooperative play skills. For further information call Georgia Tiedemann at the Sharing Project 228-6771.

Fitness Appraisal
Physical Education & Recreation, through the John M. Buchanan Fitness and Research Centre, is administering a physical fitness assessment program to students, faculty, staff and the general public. Approx. 1 hour, students $25, all others $30. For information call 228-4356.

Surplus Equipment Recycling Facility
All surplus items. For information call 228-2813. Every Wednesday Noon - 3 p.m. Task Force Bldg, 2352 Health Science Mall.

Badminton Club
Faculty, Staff and Graduate Student Badminton Club meets Thursdays 8:30-10:30 p.m. and Fridays 6:30-8:30 p.m. in Gym A of the Robert Osborne Sports Centre. Cost is $15 plus REC UBC card. For more information call Bernie 228-4025 or 731-9966.

Neville Scarfe Children's Garden
Visit the Neville Scarfe Children's Garden located west of the Education Building. Open all year - free. Families interested in planting, weeding and watering in the garden contact Jo-Anne Naslund at 434-1081 or 228-3767.

Nitobe Memorial Garden
Open 10:00 a.m.-3:00 p.m., until Mar. 16. Monday - Friday Free.

Botanical Gardens
Open 10:00 a.m.-3:00 p.m., until Mar. 16. Daily. Free.

calendar

Feb. 26 - March 11

"Photographer with Colossal Statue of Constantius II, Capitoline Museum, Rome, 1986," is one of the photos by Vancouver-based art teacher and critic Art Perry on display at the Fine Arts Gallery until March 18.

CALENDAR DEADLINES

For events in the period March 12 to March 25, notices must be submitted on proper Calendar forms no later than 4 p.m. on Wednesday, March 1 to the Community Relations Office, 6328 Memorial Rd., Room 207, Old Administration Building. For more information call 228-3131.

MONDAY, FEB. 27

Cecil & Ida Green Visiting Professorships Political Science & Sociology Lecture
The Social Conditions of Democracy in the Third World. Prof. Seymour Martin Lipset, Political Science & Sociology, Stanford U. For information call 228-5675. Room A-104, Buchanan Bldg. 12:30 p.m.

Cecil & Ida Green Visiting Professorships Sociology Seminar
The Values and Culture of Canada and the United States. Prof. Seymour Martin Lipset, Political Science & Sociology, Stanford U. For information call 228-5675. Room 207/209, AnSoc Bldg. 3:30-5:30 p.m.

Applied Mathematics Seminar
Dynamics of Atmospheric Frontal Systems. Dr. Gordon McBean, UBC. For information call 228-4584. Room 229, Mathematics Bldg. 3:45 p.m.

Chemistry/Life Sciences Seminar
Molecular Design of Polymers For Cell Separation. Kazunori Kataoka, Ph.D., Institute of Biomedical Engineering, Tokyo Women's Medical College. For information call 228-7081. Vassar Seminar Room, Pathology Department, ACU, Health Sciences Centre. 11:30 a.m.

Biochemical Seminar
Lineage-Specific Gene Expression During Development of C. Elegans. Dr. J. McGhee, Medical Biochemistry, U. of Calgary. For information call Dr. C. Astell at 228-2142. Lecture Hall #4, IRC Bldg. 3:45 p.m.

Physiology Seminar
The Responses of Vasopressin to Hypoxia. Dr. J.R. Claybaugh, Chief, Physiology Dept. of Clinical Investigation, Tripler Army/Medical Centre, Hawaii. For information call 228-2083. Room #1, IRC Bldg. 4:45 p.m.

Financial Planning Seminar
Tax Planning - Looking Ahead, Tax Saving Techniques. Don Proteau, Hodgins Leard Proteau (registered financial planner). Open to Faculty Association Members and spouses. Free. For information call 222-5270. Room 104, Henry Angus Bldg. 12:30-1:20 p.m.

Health Care Seminar
The Wellness Program at St. Paul's Hospital. G. Ross Ramsey, Director, Wellness Program, St. Paul's Hospital. For information call 228-2258. Room 253, James Mather Bldg. 4-5:30 p.m.

Astronomy Seminar
Evidence for Massive Black Holes in Nearby Galaxies. Dr. Douglas Richstone, U. of Michigan. Refreshments served. For information call 228-4134. Room 260, Geophysics and Astronomy Bldg. 4 p.m.

TUESDAY, FEB. 28

Oceanography Seminar
Early Diagenesis of Lead in the Laurentian Trough Sediments. Dr. C. Gobeil, Institut Maurice Lamontague, Mont Joli, Quebec. For information call 228-5210. Room 1465, Bioscience Bldg. 3:30 p.m.

Pharmaceutical Sciences Special Seminar
Contact Angles and Their Thermodynamic Significance. Dr. Wendy Duncan-Hewitt, Post-Doctoral Fellow, Dept. of Mechanical Engineering, U. of T. For information call 228-5061. Room #3, IRC Bldg. 12:30 p.m.

Cecil & Idea Green Visiting Professorships Political Science Seminar
The Evolution of Democracy in the English Speaking Countries. Prof. Seymour Martin Lipset, Political Science & Sociology, Stanford U. For information call 228-5675. Room A-205, Buchanan Bldg. 12:30-2:30 p.m.

Lecture & Slide Presentation
Yoshio Markino: A Japanese Artist in Rome (1908-1909). Ross Kilpatrick, Prof. of Classics, Queen's University. For information call Dr. J. Russell at 228-3380. Auditorium, Asian Centre. 8 p.m.

Christian Forum Lecture/Discussion
Science + Christianity = ? Dr. Chris Brion, UBC. Refreshments served. For information call 228-3112. Penthouse, Buchanan "B" Bldg. 4:30 p.m.

Statistics Seminar
Rating Systems Based on Paired Comparison Models. Dr. Harry Joe, UBC. For information call 228-3319 or 228-2234. Room 102, Ponderosa Annex C. 4 p.m.

Forestry Awareness Series
Resolving Unnecessary Conflicts? The Forestry-Wilderness Stalemate. Michael McGonigle, Resource Management, SFU. For information call 228-6021 or 228-4488. Room 166, MacMillan Bldg. 12:30-1:30 p.m.

Chemistry Seminar
Chemical Reactions of Organic Crystals: The Medium is the Message. Dr. John R. Scheffer, UBC. Refreshments served. For information call 228-3266. Room 250, Chemistry Bldg. 1 p.m.

UBC Reports is published every second Thursday by the UBC Community Relations Office, 6328 Memorial Rd., Vancouver, B.C., V6T 1W5. Telephone 228-3131.
Editor-in-Chief: Don Whiteley
Editor: Howard Fluxgold
Contributors: Greg Dickson, Paula Martin, Jo Moss, Gavin Wilson.

Botany Seminar
The Evolution of Rubisco in Marine Plants - New Horizons. Dr. Rose Ann Cattolico, Botany Dept, U. of Washington. For information call 228-2133. Room 2000, Biological Sciences Bldg. 12:30 p.m

WEDNESDAY, MAR. 1

Forestry Seminar
B.C. Log Export Policy: Historical Review and Analysis. Mr. Craig Shinn, U. of Washington. For information call 228-2507 or 228-4166. Room 166, MacMillan Bldg. 12:30-1:30 p.m.

Geophysics Seminar
Icequakes: An Oceanographic Analogy to Earthquakes. Dr. David Farmer, Institute of Ocean Sciences, Patricia Bay, B.C. Refreshments served. For information call 228-5406. Room 260, Geophysics & Astronomy Bldg. 4 p.m.

Pharmacology & Therapeutics Seminar
Neurochemical Correlates of Brain-Stimulation Reward. Dr. A.G. Phillips, UBC. For information call 228-2575. Room 317, Basic Medical Sciences Bldg. "C". Noon.

Committee On Lectures
Horace, Virgil and the Septuagint. Prof. Ross Kilpatrick. Classics, Queen's U. For information call 228-2889. Room A-104, Buchanan Bldg. 12:30 p.m.

Ethnic Studies Lecture
Ethnic Studies Programs in U.S. Higher Education: Pain or Promise? Dr. Miguel Carranza, Department of Sociology, U. of Nebraska. For information call 228-3396. Room B325, Buchanan Bldg. 12:30 p.m.

Japanese Law/Trade Seminar
Japanese Distribution System as an Alleged Non-Tariff Barrier (NTB). Prof. Kenji Sanekata, Faculty of Law, Hokkaido U., Japan. For information call 228-4780. Room 149, Curtis Law Bldg. 2:45 p.m.

Academic Women's Association Seminar
Research on the Interface of Mathematics and Computer Science. Maria Klawe, Head, Computer Science. Bring your own lunch. For information call 228-5331. Penthouse, Buchanan Bldg. 12:30 p.m.

Microbiology Seminar
Extracellular Lipase of Pseudomonas Aeruginosa. Dr. Karl Jaeger, UBC. For information call 228-6648. Room 201, Wesbrook Bldg. 12:30 p.m.

Ecology/Resource Ecology Seminar
The Population Genetics of Cyclic Small Mammals. Michael Gaines, U. of Kansas. For information call 228-4329. Room 2449, Biosciences Bldg. 4:30 p.m.

Financial Planning Seminar
Tax Planning - Looking Ahead, Tax Saving Techniques. Don Proteau, Hodgins Leard Proteau (registered financial planner). Open to Faculty Association Members and Spouses. Free. Repeat of Feb. 27 session. For information call 222-5270. Lecture Hall #5, IRC Bldg. 12:30-1:20 p.m.

Social Work Colloquium
Intervention Roles in Child Sexual Abuse - Group Worker's Role. Lynn Carter, Family Services, Vancouver. Free. For information call 228-2576. Lecture Hall A, School of Social Work. 1-2 p.m.

Geography Colloquium
Towards a New Housing Model? Changes in Socialist Housing Systems. Jozsef Hegedus, Institute of Sociology. Hungarian Academy of Sciences, and Ivan Tosics, Institute of Building Economy and Organization, Budapest. For information call 228-2663. Room 201, Geography Bldg. 3:30 p.m.

THURSDAY, MAR. 2

Grand Rounds
Laboratory Diagnosis of Lipoprotein Disorders. J. Frohlich. For information call 875-2181. Auditorium, University Hospital (UBC Site). Noon

Art History Lecture
Liberal, Curious and Female Artifices: Attitudes to the Visual Arts in Early 18th Century Britain. Carol Gibson-Wood, Art Historian, Queen's U. For information call 228-2757. Room 102, Lasserre Bldg. 12:30 p.m.

Physics Colloquium
From the Eye to the Brain. Dr. Max Cynader, Dept. of Ophthalmology, UBC and CIAR. For information call 228-2136 or 228-3853. Room 201, Hennings Bldg. 4 p.m.

Panel Discussion
Office for Women Students presents Directions for Humanities, Career Planning Strategies for Humanities Majors. Panelists. Nancy Horsman, UBC; Beth Bosshard, UBC; Dr. Jerry Wasserman, UBC. Darlene Marzari, MLA Vancouver Point Grey. Room #3, IRC Bldg. 12:30-2:20 p.m.

Medical Grand Rounds
Renovascular Hypertension. Dr. R. Jean Shapiro. Nephrology, UBC. For information call 228-7737. Room G279, HSCH-ACU. Noon.

Neuroscience Discussion Seminar
Trans-Synoptic Regulation of Neuronal Development: Signals and Metabolic Consequences. Dr. Edwin W. Rubel, Prof. of Otolaryngology, Physiology/Biophysics, Neurological Surgery & Psychology, U. of Washington For information call Dr. Peter B. Reiner at 228-7369 Room #3, IRC Bldg. 4:30 p.m.

FRIDAY, MAR. 3

Paediatrics Grand Rounds
Neuroscience Day - Pediatric Neurology. For information call 875-2117. Auditorium, G.F. Strong Rehab. Centre. 9 a.m.

Fisheries and Aquatic Science Seminar
Disturbance, Land Form, and the Structure of Stream Ecosystems in the Pacific Northwest. Dr. Garry Lamberti, Department of Fisheries and Wildlife, Oregon State U. For information call 228-4329. Room 2361, Biosciences Bldg. 3:30 p.m.

Chemical Engineering Seminar
Self-Inducing Type of Agitated Slurry Reactor. Mr. Yang Li, Graduate Student, UBC. For information call 228-3238. Room 206, Chemical Engineering Bldg. 3:30 p.m.

Pharmaceutical Sciences Seminar
Cultured Human Nasal Epithelial Multicellular spheroids: A Morphologically and Electrically Polar Model. Bruce Wilson, UBC. For information call 228-2270. Room #3, IRC Bldg. 12:30 p.m.

Medical Genetics Seminar
Biophysical Analysis of the Human Genome. Dr. Joe Gray and Lawrence Livermore, National Laboratory. For information call 228-5311. Room D308, Shaughnessy Hospital. 1 p.m.

Theoretical Chemistry Seminar
Multicritical Points in Binary Mixtures of Liquid Crystals. D. Zimmerman, UBC. For information call 228-3266 or 228-3299. Room 225, Chemistry Dept. 3:30 p.m.

SATURDAY, MAR. 4

15th Annual International Food Faisr
Fine Food, live entertainment and dancing. Dinner price includes all three events. Cost: $5 for I.H. Members; $6 for Non-Members. Please purchase tickets in advance. Available from the I.H. office. For information call 228-5021. International House. 5:30 p.m.

Weekend Seminar
Addiction to Illusions: A Workshop on Narcissistic & Borderline Pathology. Dr. Inge Pechlaner, Ph.D. in Sociology, trained as psychoanalyst in Vienna, Austria, received her MSW from UBC. A Workshop for Mental Health Professions. Fee $60. For information call 222-5261. Conference Room, Carr Hall. 9-4 p.m.

Social Work Workshop
Sensitizing Non-Natives to Native Issues in Social Services. Allan Mason, UBC. Fee $25/15 students. Pre-registration necessary. Lecture Hall A, School of Social Work. 9-4 p.m.

SUNDAY, MAR. 5

Musical Performance
As part of the Musica Latina Caliente series. Sal Ferreras, Jack Duncan and Boying Geronomio a group of talented percussionists - will perform numerous tunes. For information call 228-5087. Museum of Anthropology. 2:30 p.m.

MONDAY, MAR. 6

Classics Lecture
Greeks at Knoss: Sir Arthur Evans Revisited. Halford Haskell, Southwestern U., Georgetown, Texas. For information call 228-2889. Lecture Theatre, Museum of Anthropology. 8 p.m.

Festival of Indian Films
Sagara Sangamam (Telugu). Directed by K. Viswanath. Screening of recent feature films from India (with English subtitles). Free admission. Films courtesy of Consulate General of India. For information call 228-2746. Auditorium, Asian Centre. 7 p.m.

Mech 598 Seminar
Analysis of Feed Drive for Cutting Process Monitoring, Jie Peng, Graduate Student; The Formulation of the Dynamics of Interconnected Flexible Members in the Presence of Environmental Forces, C.K. Alfred Ng. For information call 228-4350. Room 1215, CEME Bldg. 3:30 p.m.

TUESDAY, MAR. 7

Oceanography Seminar
Toxicopathic Liver Disease of Netpen-Reared Salmon. Dr. Michael Kent, Pacific Biological Station, Nanaimo. For information call 228-5210. Room 1465, Bioscience Bldg. 3:30 p.m.

Festival of Indian Films
Banker Margayya (Kannada). Directed by T. Nagabharana. Screening of recent feature films from India (with English subtitles). Free admission. Films courtesy of Consulate General of India. For information call 228-2746. Auditorium, Asian Centre 7 p.m.

Faculty Seminar
When You Talk, They Should Listen. Margaret Hope. Free to faculty. A variety of factors effect classroom communication. This session covers some of the key issues of good communication. For information call 222-5272 or 222-5222 to register Course #FD3344. Room 1100, Math Annex. 4:30-5:45 p.m.

Final Ph.D. Seminar
Maternal-Fetal Disposition, Fetal Pharmacodynamics and Comparative Pharmacokinetics of Diphenhydramine in Pregnant and Nonpregnant Sheep. Dr. Sun Dong Yoo, Graduate Student. For information call 228-4887. Room #3, IRC Bldg. 12:30 p.m.

Statistics Seminar
Efficient Estimation For Filtered Models. Prof. P. E. Greenwood, UBC. For information call 228-3319. Room 102, Ponderosa Annex C. 4 p.m.

Forestry Awareness Seminar
The View From the Woods. Joe Saysell, Woodworkers Survival Task Force. For information call 228-6021 or 228-4488. Room 166, MacMillan Bldg. 12:30-1:30 p.m.

Musical Performance
UBC Opera Theatre - under the direction of French Tickner, company members will perform excerpts from their full-staged production of Mozart's Marriage of Figaro. For information call 228-5087. Museum of Anthropology. 7:30 p.m.

Botany Seminar
Responses of Roots to Environmental Stresses. Dr. David Reid, Biology Dept., U. of Calgary. For information call 228-2133. Room 2000, Biological Sciences Bldg. 12:30 p.m.

CIL Chemistry Lecture
Vibrational Spectroscopy of Molecular Beams. Prof. T.E. Gough, Chemistry Dept., U. of Waterloo. Refreshments Served. For information call 228-3266. Room 250, Chemistry Bldg. 1 p.m.

WEDNESDAY, MAR. 8

Festival of Indian Films
Mukha Mukham (Malayalam). Directed by Adoor Gopalakrishnan. Screening of recent feature films from India (with English subtitles). Free admission. Films courtesy of Consulate General of India. For information call 228-2746. Auditorium, Asian Centre. 7 p.m.

Forestry Seminar
Economic Growth Sustainibility and the Scarcity of Land and Natural Resources. Prof. Peter Pearse, UBC. For information call 228-2507 or 228-4166. Room 166, MacMillan Bldg. 12:30-1:30 p.m.

Applied Mathematics Seminar
A Reaction-Diffusion Cell Cycle Model. Dr. Stavros Busenberg. Harvey Mudd College, Claremont, CA (currently visiting Mathematics, U.Vic.). For information call 228-4584. Room 229, Mathematics Bldg. 3:45 p.m.

Geophysics Seminar
Quantitative Interpretation of Nuclear Magnetic Resonance Relaxation Data. Kenneth P. Whittall, UBC. Refreshments served. For information call 228-5406. Room 260, Geophysics & Astronomy Bldg. 4 p.m.

Anthropology & Sociology Lecture
The Non-Routine And What It Reveals About Culture. Dr. Robert Paine, Prof, The Institute of Social and Economic Research, Memorial U. of Newfoundland. For information call 228-2878. Room 207/209, AnSoc Bldg. 12:30 p.m.

Continued on Page 6