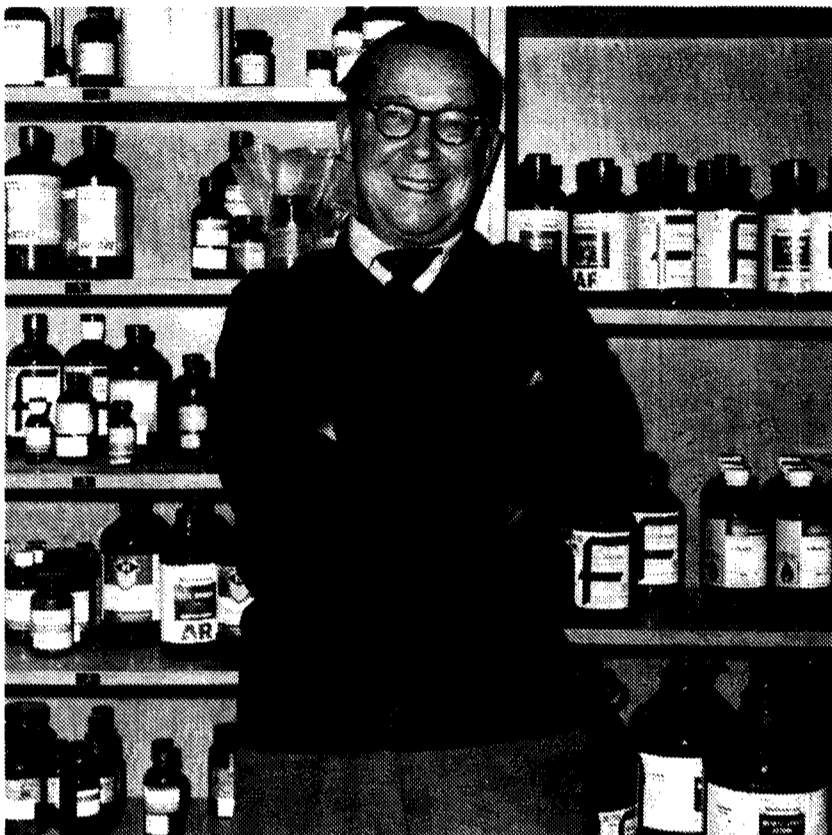


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# UBC reports

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Jim Banham photo

Roger Dufrane

## This UBC poet works in the Chemistry Building

The stores department of UBC's Department of Chemistry would seem to be the least likely place on campus to find an award-winning poet who writes in French.

But that's where you'll find Roger Dufrane, 58, a 26-year employee of UBC who has just had one of his poems published in France in *Art et Poesie*, an international revue of French culture and the quarterly publication of La Societe des Poetes et Artistes de France.

The review, Mr. Dufrane said, is interested in promoting French writing both inside and outside of France. At the urging of the review's local representative, he submitted a dozen poems in free verse about eight months ago.

One of the poems, entitled *Automne*, was the only submission from Canada to appear in a recent edition of the review. (Mr. Dufrane gave *UBC Reports* permission to print an English version of the poem which he translated himself. It appears at the end of this article.)

In 1976, Mr. Dufrane was in Montreal to accept an award for a poem he wrote entitled *Le Secret*, which was selected from 600 entries in an annual contest sponsored by the Societe du Bon Parler Francais, a Quebec-based literary society whose aim is to maintain the purity of the French language.

*Le Secret* was one of three poems that received honorable mention in the society's contest. He received his award — a set of art books and a diploma — at a dinner presided over by the noted French-Canadian poet Robert Choquette.

Mr. Dufrane says the ideas for his poems usually come to him suddenly, while he's on long walks or in a relaxed

mood, "and then I just grab a pencil and write."

He says the mood never strikes him at work, where he supervises the activities of stores clerks in the chemistry department.

"I write purely for pleasure," Mr. Dufrane hastens to add, "because I couldn't make a living at it in B.C."

Mr. Dufrane began to write poetry and short stories at the age of 15 in his native Belgium, when he was a student at the University of Brussels and hoping for a career as an art and literary critic when the Second World War broke out.

He spent the latter part of the war in hiding to escape being sent to Germany to do forced labor. When the war ended he worked for the American and British armies as an interpreter.

Mr. Dufrane was encouraged to come to Vancouver by his brother, Roland, who at that time was first oboe with the Vancouver Symphony Orchestra. Roger Dufrane arrived in Vancouver in 1953 and has been a UBC employee since that time.

He describes himself as a lyric poet who writes in traditional and free verse. Most of his early work was in traditional verse but in recent years he's been producing more free verse. He has written about a hundred poems in free-verse form which he hopes someday will be published.

He has also written an unpublished prose work entitled *Visages de Vancouver*, which he describes as an evocative work about areas of the Lower Mainland and Vancouver, including Squamish, Stanley Park and the Shaughnessy district.

Mr. Dufrane is married and has two

Please turn to page 2  
See POET

## Tuition-fee increase postponed by Board until April 30, 1980

There will be no increase in tuition fees at UBC this year. A recommendation by President Douglas Kenny to postpone a tuition-fee increase until the spring of 1980 was approved by UBC's Board of Governors at its June meeting last week.

The Board did approve a tuition-fee increase averaging 10 per cent to take effect on April 30, 1980, with the start of the next spring session.

As a result of the postponement, winter session students will not face a fee increase until September, 1980, when the 1980-81 session begins.

President Kenny said his decision to recommend that fees remain at their present levels for the 1979-80 winter session arose from his concern that students should be informed before they left the campus if there was to be a fee increase in September, 1979.

### Election forced postponement

"However, the University had to postpone making a decision about fees because the provincial government called an election before a budget had been approved by the legislature," the president said.

In the interim, President Kenny said, the Universities Council of B.C. allocated the overall amount which the government, in its original budget, announced would be available for university operating purposes in the 1979-80 fiscal year.

He added that the UCBC recommendations must still be approved by the legislature, which has only just reconvened.

Postponement of the tuition-fee increase until next year "gives students and parents a lead time of approximately 15 months to plan and budget for the increase," President Kenny said.

"Equally important, it gives the University adequate time to plan in advance of its next fiscal year, which begins in the spring of 1980."

### Funds for four new programs

President Kenny said the operating grant recommended by the Universities Council for UBC would enable the University to introduce four new programs, provide funding for an emerging program in coal engineering, and initiate a number of "programs of distinction" of particular economic, social, cultural or educational benefit to B.C.

He said he did not anticipate there would be any significant cutbacks in the UBC budget as a result of the UCBC allocations.

This year, for the first time, the Council allocated most of the provincial grant on the basis of a formula which, in the main, relates to enrolments. President Kenny said the percentage increase in the recommended operating grant for UBC was the lowest of the three universities because of enrolment shifts within the provincial university system.

The total provincial grant for universities for 1979-80 is \$217,225,797, an increase of 8.3 per cent over 1978-79.

### UCBC recommends grants

Here are the 1979-80 operating-grant recommendations made by the Universities Council for each university (the figures in brackets are the percentage increases in the 1979-80 grant over the grant in the previous fiscal year.)

UBC	\$131,831,768 (7.81)
SFU	\$ 48,522,954 (9.95)
UVic	\$ 36,871,075 (7.93)

In actual dollar figures, the 1979-80 allocation to UBC is an increase of \$9,545,768 over 1978-79.

Commenting on the use of the formula in its report on allocations, the Council said: "From the perspective of the universities the most significant contributions of the formula may well be in the areas of equity and planning predictability. The latter will enable the universities to make more reliable projections and thus better fulfill the university needs of the people of B.C."

The formula, the Council said in its report, was applied after allowances had been made for new and emerging programs and for programs of distinction.

UBC received a total of \$278,542 for new and emerging programs.

### Programs of distinction funded

The new-program allocation of \$249,942 will enable UBC to offer the following in 1979-80 — Master of Fine Arts, Bachelor of Education (French), Landscape Architecture and Medical Laboratory Science. The balance of the allocation — \$28,600 — will be used to operate the emerging program in coal engineering.

Out of a total of \$1,050,000 allocated by UCBC for programs of distinction, UBC received \$637,287. In its allocation report, the Council said the amount designated for programs of distinction is approximately one-half of 1 per cent of the provincial operating grant.

## New department head, centre director named

UBC's Board of Governors has approved the appointment of Prof. George Poling as head of the Department of Mineral Engineering and Anne D. Tilley, of the School of Physical Education and Recreation, as director of the Bob Berwick Memorial Centre.

Prof. Poling, a native of Lloydminster, Alberta, has been acting head of mineral engineering since the resignation in mid-December of 1978 of Prof. J.B. "Blue" Evans, who returned to his native Australia to accept a senior university appointment there.

A member of the UBC faculty since 1968, Prof. Poling is a graduate of the

University of Alberta, where he received the degrees of Bachelor and Master of Science and Doctor of Philosophy.

Prof. Poling is an expert in the field of mineral processing, including the extraction of metals from ore to produce concentrates.

He said the department he now heads is involved in two major projects — development of a new coal engineering program and revision of the mining engineering program in the department to make it more responsive to the needs of students and industry.

As director of the Bob Berwick Memorial Centre on Osoyoos Road on UBC's south campus, Anne Tilley will head an interdisciplinary training program designed to prepare students to work with the mentally retarded.

The training program, which is in the process of continuing development at the centre, involves students in education, medicine, pharmaceutical sciences, social work, home economics, rehabilitation medicine, physical education and recreation, nursing and law.

Ms. Tilley will also continue to teach in UBC's School of Physical Education, where she specializes in programs for the retarded.

As director of the centre, Ms. Tilley will also have administrative responsibility for two organizations that are housed in the building — the B.C. Mental Retardation Institute, which is closely associated with the B.C. Association for the Mentally Retarded, and UBC's Pre-School for Special Children, which is supported by the Vancouver-Richmond Association for the Mentally Retarded.

A native of England, Ms. Tilley holds a teaching diploma from Britain's Dartford College of Physical Education, a Bachelor of Arts degree from McMaster University in Hamilton, Ont., and a Master of Education degree from the University of Birmingham in England.

She joined the UBC faculty in 1958 and chaired the Women's Athletic Committee from 1961 to 1965.

The \$1 million Berwick Memorial Centre was built with funds raised by the Variety Club of Western Canada in 1974 and 1975 telethons and the House of Hope Christmas fund drive sponsored by the *Vancouver Sun* in 1974. The late Bob Berwick was a well-known Vancouver architect whose firm designed the centre and a founding member of the western Variety Club.



Anne Ironside counsels at UBC's Women's Resources Centre

## IYC conference set

UBC will be the site June 18 and 19 for a multi-disciplinary conference on advances in research and services for children with special needs as part of Canada's contribution to the United Nations' International Year of the Child.

Dr. Geraldine Schwartz of UBC's Department of Paediatrics is co-ordinator of the conference, which meets in the Student Union Building on the UBC campus.

In addition to the sessions at UBC, two keynote speakers at the meeting will give public lectures at the Robson Square Theatre in downtown Vancouver on Monday and Tuesday, June 18 and 19 at 8 p.m. (For details, see listings under each day in "UBCalendar" on page 4.)

Full details on the conference and public lectures are available by calling the Children's Hospital, 327-1101, local 341.

## UBC chemist dies

Lothar Joachim Muenster, a member of the University faculty for 20 years, collapsed and died on Monday (June 11) after completing a noon-hour swim.

He was an assistant professor of chemistry.

Mr. Muenster, who was 56, taught practical organic chemistry. He received a Master Teacher Award certificate of merit from UBC in 1971, and in 1970 and 1976 he earned teacher-of-the-year honors from the student chapter of the Chemical Institute of Canada.

Funeral arrangements for Mr. Muenster, who was single, will be announced later.

### POET

Continued from page 1

children, Viviane, 19, who's just completed first-year Arts at UBC (she's planning to specialize in languages

and hopes to become a translator), and Marc, 16, a student at Vancouver College.

Now, here's the English translation of Mr. Dufrane's poem that was published recently in France.

Give me your hand which I want to touch with my lips,  
Give me your face which I want to caress.  
It is so soft!  
I perceive a scent of dream and rose  
which reminds me of the Spring.  
I wander in the countryside of your eyes  
As I used to in the fields of my country.  
I should have known you then and become your lover.  
We would have walked together  
Through the flowered paths of our youth.  
Autumn has come.  
The birds of our gardens will soon depart.  
The leaves are falling.  
The birds are flying  
Like kisses on the lips of the year,  
A year as bright as your eyes,  
As fair as your hair,  
Cheerful like you  
And which slowly disappears  
Through the golden trails of life.

## Downtown centre serves as province-wide model

Because of the example of Anne Ironside and the UBC Women's Resources Centre, women throughout the province will now be able to develop resource centres where they can find out about educational opportunities and plan their futures.

The ministry of education has set aside money so that community colleges and institutes in B.C. can establish women's access centres, based on the example of the Women's Resources Centre at UBC. Five community colleges have already applied for and received funds — Malaspina in Nanaimo, Okanagan College in Vernon, the College of New Caledonia in Prince George, Northwest Community College in Terrace and Cariboo College in Kamloops.

Ms. Ironside began the Women's Resources Centre at UBC six years ago. It has gradually grown into a major information and education service with more than 700 women a month telephoning or dropping in to the centre on Robson Street in downtown Vancouver.

In addition to the informal contact people make with the centre, many women also attend the 40 or so formal programs which are offered throughout the year.

Women come to the resource centre for a variety of reasons — information on what type of training or education is offered where in the Lower Mainland, advice on planning their future, psychological testing to discover skills and interests, information and help to choose a career.

Part of Anne Ironside's work at the Women's Resources Centre naturally involved meeting women from all over the province who were interested in having programs offered in their areas. "There's a tremendous need for programs such as we offer," she said. "I'm gratified that some of the women that I met two or three years ago are now writing to the ministry (of education) trying to get money to set up centres themselves."

It was because of the need that she saw in other areas of the province that Ms. Ironside decided last spring to approach the ministry of education about the possibility of setting up other centres. It took her "a couple of weeks" to put together a 47-page proposal outlining the benefits of women's resources centres, how to set them up, and details of some of the kinds of programs which could be offered.

The ministry's program "was totally focussed on kindergarten to grade 12," she said. The special needs of women who had been out of the school system for some time were not being considered.

"Post-secondary institutions were not planned for the mature woman," she stated in the proposal, "and are more or less inflexible. Women require services to assist them to update their expectations and work out ways to combine family responsibilities with study and labor-force participation."

Her proposal now forms the basis for the education ministry's policy on women's resources centres. In the budget year just ended, the ministry committed \$100,000 to establish centres which would be associated with community colleges and institutes throughout the province and staffed by volunteers.

Volunteer staffing is an essential ingredient to the women's resources centre, as it operates at the UBC centre on Robson Street or anywhere else in the province. Not only does volunteer staffing reduce the cost of operating centres, it also gives women who volunteer a chance to learn new skills and update old ones, so that they themselves can be better prepared to make the transition to paid employment.

The 25 volunteers who operate the UBC Women's Resources Centre do everything from office organization, through gathering information on educational opportunities and counselling and vocational planning. They're given training in counselling, office systems and other skills they will need and are expected to give their services for between one and two years.

Shorter internships are also offered to people from out-of-town so that they can learn how to set up centres in their own areas.

"Our Women's Resources Centre is really becoming a training centre," Ms. Ironside said. "We've developed an approach that a lot of women can make use of, and as a life-planning centre, it's having an enormous impact on a large number of women."

The success of the UBC centre, and now the example it has provided for an overall provincial policy also demonstrates one of the Centre for Continuing Education's important roles in continuing education: to experiment and develop models for education that other groups can use.

## New British Columbia atlas is ambitious project

If you've ever wanted to know with one easy glance where all the ski areas are in British Columbia, or all the boat launching ramps. . . If you've wanted to know about seismic activity in the province, or about the distribution and harvest of game animals. . . UBC Press has all the answers.

They're all wrapped up in the most ambitious publishing venture the University Press has undertaken—the *Atlas of British Columbia*.

The atlas will be published on June 25 and is the first major cartographic study of the province to be published in more than 20 years. It's the work of Dr. A.L. "Bert" Farley of UBC's geography department in co-operation with more than 30 people acting as cartographers and consultants.

This major project has taken four years to complete. It's a complicated process to design maps which are both accurate and readable, easily understood and useful both for people in industry and students in high school. To help get a clearer idea of how people read maps, Dr. Farley and his team set up various design layouts and scales during UBC's Open House in 1976 and asked people what their preferences were, what order they read things in, and other information.

As well as the help he got from Open House visitors, Dr. Farley has received assistance from many experts in industry. "I can't profess to be a specialist in the soils of British Columbia, for example," he explained, "and so I got information for that section from the Canadian Department of Agriculture."

Research grants to help the project have come from the Canada Council, the provincial government, the Samuel and Saidye Bronfman Foundation, the Koerner and Vancouver foundations and from private business and industry.

And students in geography, too, have been employed on the project. Through the provincial government's



Picture by Jim Banham

Dr. A.L. "Bert" Farley

Youth Employment Program and the federal Young Canada Works program, 16 students have been given practical experience in map-making in all its stages, under Dr. Farley's direction.

The need for an atlas of B.C. like this one is not a matter of speculation. The previous *British*

*Columbia Atlas of Resources*, published in 1956, which is still very much in use in spite of its dated information, was out of print within three years of its publication, said Dr. Farley. He was one of the cartographic editors for that atlas.

Such a massive undertaking involves a tremendous amount of energy and research, yet Dr. Farley doesn't begrudge any of the extra time he's spent. "Of all the things that I might have done as an academic, I'm convinced that this atlas is the most useful for the public."

"I feel as an academic at this institution that I owe something to the people of B.C. who have supported my work throughout the years." Dr. Farley joined the faculty of UBC in 1958 after spending five years as a geographer for the provincial Surveys and Mapping branch. He received both his Bachelor of Arts and Master of Arts from UBC, followed by a Ph.D. from the University of Wisconsin's academic cartography department.

*The Atlas of British Columbia: People, Environment, and Resource Use* is an attractive production. Its 115 full-color maps face text pages which explain different features on the maps and describe trends. The information covered ranges from growth of the labor force and distribution of native peoples in the People section; from concentration of fish and climatic features in the Environment section; to regional linkages based on telephone calls and location and capacity of sawmills in the Resources Use section.

The maps are really resource charts in many cases. They illustrate not only where the natural resources are, but also how people have put them to use. They show the historical growth of the province through changes in population and settlement. And they show the geological and climatic patterns.

Now you might think that this last area is something which wouldn't

be out of date since the 1956 atlas. But Dr. Farley said that even the geography of the province changes all the time. In fact, things change so rapidly now that almost before information and statistics can be gathered, they're out of date. That's a problem that has faced the atlas-makers on this project. For example, the latest figures that were available for map showing population in the province are dated 1976; the distribution of pulp, paper mills and plywood plants in the forestry resource use section is based on 1975 figures.

"From the perspective of one wanting to know where we have been, an atlas is timeless," Dr. Farley explained. And for people interested in how the economy of the province is likely to develop in years to come, it's also useful. "But any atlas is out of date by the time it's in final form, as this one is now," he said. "I'm trying to put in the back of my mind any thoughts of updating this atlas."

*The Atlas of British Columbia* will have an initial printing of 25,000 copies which will retail for \$45 each. About 15,000 are expected to sell primarily to companies operating in B.C., to planners and consultants both in the private and public sectors, and to libraries throughout North America. The other 10,000 copies will go directly to British Columbia schools.

Preview copies so far have been greeted favorably by many of the professional organizations in the province—the Council of Forest Industries, the Mining Association of B.C., the B.C. Teachers Federation, the B.C. Federation of Agriculture and others. And that means a lot to the University of B.C. Press, the book's publisher.

As Tony Blicq, director of the UBC Press, says, "It is one of our principal objectives to provide books about B.C. for British Columbians, and this atlas represents a fine achievement of the practical operation of that policy."

## UBC geographer to put Canadian history on map

Another UBC geographer is a key member of a group of Canadian university professors who intend to put Canadian history on a map.

Prof. R. Cole Harris has been named the editor of volume one of a three-volume *Historical Atlas of Canada*, to be produced over a six-year period with a \$3.5 million grant from the Social Sciences and Humanities Research Council of Canada.

Volume one will explore the history and development of Canada up to 1780. The 175-page volume will consist mainly of maps and related text as well as graphs and photographs.

Prof. Harris said he will spend most of this summer in Quebec doing preliminary work on the first volume of the atlas. He hopes to complete the manuscript for it within two years and expects it will take 3½ to 4 years for volume one to appear.

"The project is a significant one for Canada and for the field of scholarship generally," Prof. Harris said. "Nothing like it has ever been attempted in Canada or anywhere else for that matter, and quite apart from its value for Canada as a whole it should be a unique contribution to cartography and the concept of the historical atlas."

The aim of the project, he added, is to produce a general-use atlas that will be useful in schools and universities and serve as a standard reference work. "It's also intended that each volume will summarize the best recent scholarship for each of the historical periods covered."

Prof. Harris said much of his time will be spent recruiting scholars in a variety of fields to prepare material for the atlas, which will be produced at the University of Toronto under the general direction of Prof. William Dean.

Volume one will be concerned with the indigenous people of Canada and their early contacts with Europeans, with exploration, and with the settlements and societies that resulted from the penetration of pre-industrial Europe into the northern part of the North American continent.

Volume two, which will cover the century between 1780 and 1881, will deal mainly with Euro-Canadian settlements and the social and economic structures that resulted from industrial development. The third volume, covering the period 1881 to 1951, will depict the emergence of a national economy, the survival of regional cultures within the changing technology, institutions and scale of modern industrial society.

It's expected that scholars and graduate students from 11 Canadian universities will be involved in producing the atlas between now and 1985.



R. Cole Harris

# UBC Calendar

## UBC CALENDAR DEADLINES

Events in the week of

June 24-June 30 Deadline is 5 p.m. June 14  
July 1-July 7 Deadline is 5 p.m. June 21

Send notices to Information Services, 6328 Memorial Road (Old Administration Building), Campus. Further information is available at 228-3131.

## MONDAY, JUNE 18

**8:00 p.m. INTERNATIONAL YEAR OF THE CHILD LECTURE.** Prof. Paul Satz, Department of Psychology, Shands Teaching Hospital, University of Florida, on **Recent Progress in the Treatment and Understanding of Children with Learning Disorders.** Robson Square Theatre in downtown Vancouver. Admission \$4 at the door. This is one of two public lectures included in a conference entitled **Advances in Research and Services for Children with Special Needs**, being held in UBC's Student Union Building on June 18 and 19. For information on the conference and lectures call 327-1101, local 341.

## TUESDAY, JUNE 19

**8:00 p.m. INTERNATIONAL YEAR OF THE CHILD LECTURE.** Prof. Walter Lambert, Department of Psychology, McGill University, on **Canadian Approaches to Child Rearing Seen in Cross-Cultural Perspective.** Robson Square Theatre in downtown Vancouver. Admission \$4 at the door. This is one of two public lectures included in a conference entitled **Advances in Research and Services for Children with Special Needs**, being held in UBC's Student Union Building on June 18 and 19. For information on the conference and lectures call 327-1101, local 341.

## WEDNESDAY, JUNE 20

**10:30 a.m. SYDNEY ISRAELS MEMORIAL SEMINAR.** Dr. J.K. Brown, Royal Hospital for Sick Children, Edinburgh, on **Some Thoughts on Cerebral Palsy and Perinatal Asphyxia.** Lecture Room B, Vancouver General Hospital.

**3:30 p.m. APPLIED PROBABILITY AND STATISTICS WORKSHOP.** Kenneth R.W. Brewer, director, ANU Survey Research Centre, Australian National University, Canberra, on **A Class of Robust Sampling Designs for Large Scale Surveys.** Room 223, Angus Building.

**8:00 p.m. INTERNATIONAL HOUSE.** Music, coffee, bagels, films and drama at the Coffee Place, International House.

## THURSDAY, JUNE 21

**9:00 a.m. PSYCHIATRY CONFERENCE.** Dr. Stella Chess, professor of child psychiatry, New York University Medical Center, on **Practical Implications of Research on Children's Temperament.** Lecture Theatre, Health Sciences Centre, Psychiatric Unit.

**12 noon SOLAR ARCHITECTURE SEMINAR.** Dr. Richard Bruno, Energy Systems Project, Phillips Research Laboratory, Aachen, West Germany, on **The Phillips Experimental Solar House Project.** Room 102, Lasserre Building.

## THURSDAY, JUNE 21 (Continued)

**2:00 p.m. URBAN LAND ECONOMICS SEMINAR.** Dr. Richard Sandor, Conti Financial Services, on **Mortgage-Backed Futures Markets: The Experience of the Chicago Board of Trade.** Room 2, Provincial Government Office Building, Robson Square in downtown Vancouver.

**6:00 p.m. INTERNATIONAL HOUSE PUB NIGHT.** Drinks and darts at the Coffee Place, International House.

## FRIDAY, JUNE 22

**7:30 p.m. INTERNATIONAL CULTURAL PARTY.** Entertainment, light snacks and dancing. Members, 50 cents, non-members, \$1. International House.

## UBC AQUATIC CENTRE REOPENS

The UBC Aquatic Centre will reopen for public swimming and specialized classes on Monday, June 18. Those who pay the entry fee for public swimming will have the use of both the indoor pool and the outdoor facility adjacent to the War Memorial Gymnasium. UBC students, faculty and staff only will be admitted to the pool Monday to Friday from 11:30 a.m. to 1:30 p.m. The centre also offers a wide range of special programs, including ladies and co-ed keep-fit classes; toddlers, childrens and adult swimming lessons, adult diving lessons and Royal Lifesaving Society lessons. Full information on public swimming hours is available at the centre or by calling 228-4521. The current schedule is effective until Sept. 8.

## FITNESS APPRAISAL

The School of Physical Education and Recreation offers comprehensive physical fitness assessment through the new John M. Buchanan Fitness and Research Centre in the Aquatic Centre. A complete assessment takes about an hour and encompasses various fitness tests, interpretation of results, detailed counselling and an exercise prescription. The assessment costs \$15 for students and \$20 for all others. To arrange an appointment, call 228-4521.

## FINAL ORAL EXAMINATIONS FOR THE DEGREE OF DOCTOR OF PHILOSOPHY

Listed below are scheduled final examinations for the degree of Doctor of Philosophy at the University. Unless otherwise noted, all examinations are held in the Faculty of Graduate Studies Examination Room, New Administration Building. Members of the University community are encouraged to attend the examinations, provided they do not arrive after the examination has commenced.

**Monday, June 18, 10:00 a.m.:** DAVID ZITTEN, Zoology; **Factors Influencing the Vertical Distributions of Two Intertidal Porcelain Crab Populations.** (Conference Room.)

**Tuesday, June 19, 2:00 p.m.:** KATHLEEN CHISATO MERKEN, Asian Studies; **The Evolution of Tanizaki Jun'ichiro as a Narrative Artist.**

**Wednesday, June 20, 2:00 p.m.:** KATHY LOUISE BAUMAN BURCK, Genetics; **Cross Reactivation and Partial Replication of Bacteriophage T7 DNA.**

**Wednesday, June 20, 3:30 p.m.:** DAVID COLBOURNE, Chemistry; **Photoelectron Spectroscopy Applied to the Study of Unstable Molecules.** (Room 225, Chemistry Building.)

**Friday, June 22, 10:00 a.m.:** DONALD SHERATON, Chemical Engineering; **Quantum Yields of Decomposition in the Photolytic Oxidation of Methyl Mercaptan, Dimethyl Sulphide and Dimethyl Disulphide.**

## FREE LEGAL ADVICE

The UBC Law Students Legal Advice Program offers free legal advice to people with low incomes through 18 clinics in the Lower Mainland. For information about the clinic nearest you, please telephone 228-5791 or 872-0271.

## SUMMER GARDEN HOURS

The Nitobe Garden is now open every day from 10 a.m. to half an hour before sunset. Admission: 50 cents; children 10-16, 10 cents; children under 10, seniors, handicapped and community and school groups (advance notice of one week required for advice to gateman), free. Tours for this garden and others may be requested by calling the Botanical Garden office at 228-3928.

## EXHIBITS

On display at the Museum of Anthropology are two exhibits which will continue throughout the summer months. **Plantae Occidentalis, 200 Years of Botanical Art in B.C.**, is an exhibition of 109 works which includes historical works from 1792 to contemporary 1977 paintings. **The Four Seasons: Food Getting in British Columbia Prehistory** is an exhibition showing the livelihood and living patterns of the prehistoric peoples of southern B.C., and the scientific techniques used to study their past. Four student exhibits are on display in the museum - **Design Elements in Northwest Coast Indian Art; The Evolution of Bill Reid's Beaver Print; Design Variations in Guatemalan Textiles; and Kwagiutl Masks.** The Theatre Gallery in the Museum features two multi-screen slide-sound presentations which can be operated by visitors. An exhibit on **Natural Science Illustrations Emanating from World-Wide Expeditions and Explorations of the 18th Century** continues throughout June in the Woodward Biomedical Library. Hours until June 30: Monday, Thursday, Friday, 9 a.m. - 5 p.m. Closed holidays.

## INTENSIVE ENGLISH

An intensive program in English as a Second Language begins Monday, June 18 and runs for three weeks. Two sessions are offered: mornings from 9 a.m. to 12 noon; afternoons from 1:30 to 4:30 p.m. Courses, offered at all levels, have 14 sessions of 3 hours of instruction at a cost of \$125. More information through the Language Institute, Centre for Continuing Education, 228-2181, local 285.

## GUIDED INDEPENDENT STUDY CALENDAR

The 1979-81 Calendar Supplement listing the UBC correspondence courses is now available. To obtain a copy, contact the Office of the Registrar or Guided Independent Study, Centre for Continuing Education.

## SUMMER SOCCER SCHOOL

The UBC Summer Soccer School has some vacancies in the third and fourth weeks of its summer program, July 16-27. The Soccer School will run from July 2 - July 27; Monday through Friday, 9 a.m. - 12 noon. Students, 7 to 17 years; fees, \$15 per week. Further information, 228-3341.

## THEATRE

Stage Campus 79 presents **Ring Around the Moon** by Jean Anouilh, June 13-23, at 8 p.m. Dorothy Somerset Studio. Admission, \$3.50; students, \$2.50. Sunday evening "pay what you can" performance; no performance Mondays. Box office phone 228-2678.

Eleven UBC faculty members are among 147 Canadian scientists who will receive grants under the research agreements program of the federal Department of Energy, Mines and Resources.

The 11 UBC researchers will receive a total of \$102,570 under the program which provides for Canadian research organizations to enter into agreements with EMR to undertake work in the natural, physical and social sciences and engineering which relate directly to the mission of the federal department.

The UBC researchers will receive grants under three EMR programs in the areas of the earth sciences, energy and minerals.

UBC recipients, the amounts of their grants and the titles of their projects are as follows.

Dr. Sydney Mindess, civil engineering - \$7,500 for a study of acoustic emission from concrete; Dr. R.L. Chase, Department of Oceanography - \$5,000 for a survey of metalliferous sediment in the northeastern Pacific Ocean; Dr. D.G. Perry, geological sciences - \$5,000 for biostratigraphy of the Mackenzie Mountains in the Northwest Territories; Dr. W.F. Slawson, geophysics - \$5,170 for radon detection; Dr. R.M. Clowes, geophysics - \$6,350 for interpreta-

## Funds approved for 11 UBC research projects; UBC-SFU team studies pesky ambrosia beetle

tion of ocean bottom data; Dr. R.M. Ellis, geophysics - \$6,050 for a combined seismicity-refraction experiment on the Queen Charlotte Islands; Dr. A.C.D. Chaklader, metallurgy - \$15,000 for characterization of form-cokes and factors affecting form-coking; Dr. Alec Mitchell, metallurgy - \$14,000 for solidification cracking in heavy-section electrosag weldments; Dr. A.J. Sinclair, geological sciences - \$8,000 for a quantitative approach to metallogeny in the western Cordillera; Dr. W.T. Ziemba, commerce and business administration - \$12,500 for a unified framework for the analysis of alter-

native Canadian energy policies; Dr. W.K. Oldham, civil engineering - two grants of \$9,000 each for an assessment of province-wide collection of waste lubricating oil and the energy impact of a bottle-washing facility for reused bottles. \* \* \*

Dr. John A. McLean, assistant professor in UBC's Faculty of Forestry, is the co-holder of a \$108,000 grant from the Natural Sciences and Engineering Council to develop a program aimed at control of the ambrosia beetle, a pesky wood-boring insect which costs B.C.'s lumber industry millions of dollars every year.

Dr. McLean and Prof. John Borden of the biology department of Simon Fraser University are the principal investigators under the NSERC award, which comes under an applied research program called PRAI, an acronym for Project Research Application to Industry.

Also involved in the project are UBC graduate student Terry Shore and SFU graduate student Staffan Lindgren as well as numerous lab technicians and student assistants on both campuses.

Ambrosia beetles have been an increasing problem in B.C. since 1970, when the chemical pesticides used to combat them were banned. The beetles don't attack live trees but burrow into harvested trees and processed lumber to raise their young.

This burrowing, which results in multiple pinhole tunnels, degrades wood from premium to utility and is estimated to result in losses of \$7 million a year to the lumber industry.

The approach to be taken by the UBC-SFU study is to lure the beetles into traps through the use of pheromones, a form of "perfume" exuded by insects as a means of communication. Traps laced with pheromones will be set up at several log-sorting locations and sawmills in B.C. to attract the insects.

