

# UBC's enrolment expected to hit all-time high

Enrolment has hit an all-time high at the University of British Columbia, with the number of students registered during the 1979-80 fiscal year topping 33,000 for the first time.

Spring session enrolment was a record 2,757, summer session a record 4,153, and the final figure for winter session daytime will be above 23,000 for the first time. There are also more evening and correspondence students.

The increase over last year is more than three per cent, the largest annual gain since 1975.

President Douglas Kenny said this year's significant increase in enrolment is especially encouraging in view of UBC's stiffer entrance requirements, introduced in 1977 and which will become progressively more stringent until September of 1981.

"There were many who said this would result in a decline in enrolment," the president said, "but these predictions have not been borne out. I was convinced that good students would be attracted to high standards of education."

Dr. Kenny said many other factors have contributed to the increased enrolment:

- B.C. has a higher percentage of people in the 16-to-24 age bracket than other provinces;

- In past years, a smaller percentage of university-age people in B.C. have attended university than in other provinces;

- Students are becoming more and more aware that employment success is clearly linked to educational advancement;

- The young people of this province are aware that human resources are as important to our future as are natural resources. They are aware that a well-educated work force is important, regardless of the work being done.

Dr. Kenny said he is especially encouraged that enrolment is up about six per cent this year for the various Bachelor of Arts programs, and up almost seven per cent in the Faculty of Science.

"Many of these students are taking pre-professional programs, of course, but many others are at UBC simply to get a good liberal education that will stand them in good stead whatever their eventual occupation."

The president said B.C.'s elected representatives must not be swayed by

eastern reports of declining enrolments. He said higher education in this province needs increased funding, not cutbacks.

Preliminary figures compiled by UBC's Office of Institutional Analysis and Planning indicate that 9 of UBC's 12 faculties have the same or increased enrolment over last year.

Increases of between 5 and 10 per cent have been recorded for the following degree programs: engineering, social work, nursing, commerce, science and agriculture. Enrolment in the Faculty of Medicine is also up this year, the result of UBC's continuing plan to double the size of its first-year medical class from 80 to 160 students. This year 100 students were admitted to the program.

There has also been a significant increase in the number of students who are designated as unclassified. This is a miscellaneous group of students who hold university degrees and who are continuing their education but are not

## UBC reports

Volume 25, Number 17, Sept. 26, 1979. Published by Information Services, University of B.C., 2075 Westbrook Mall, Vancouver, B.C. V6T 1W5, 228-3131. Jim Banham and Judith Walker, editors. ISSN 0497-2929.

### Park talks nearing completion

UBC's Board of Governors and the provincial government are in the final stages of negotiations that will lead to the establishment of a high-level research park on the University campus south of 16th Avenue.

Establishment of the park on a tract of south campus land totalling 88 acres will bring to conclusion more than two years of internal UBC discussions and negotiations with Discovery Park Industries Ltd., a subsidiary of the provincial government's B.C. Development Corporation.

It's expected that UBC's Discovery Park will be one of several such parks which the provincial government is interested in establishing in order to attract sophisticated, high-level technology industry to B.C.

President Douglas Kenny, in a report to UBC's Senate on Sept. 12 and a follow-up letter to faculty members last week, said establishment of high-level research parks would assist in the diversification of B.C.'s economy, which is now heavily based on the extraction of natural resources.

In addition, the president said, "the park will provide career opportunities for our graduates, so that more of them will remain in the province; it

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See PARK

ENERGY CONSERVATION HAS SOMETHING FOR EVERYBODY AT UBC.....

...BUT THE DECISION TO CONSERVE IS YOURS.

Poster, left, that won \$300 first prize for Commerce student Stan Wong last year will be making its appearance in campus buildings in October along with brochure explaining campus energy situation as UBC steps up its continuing energy-conservation program during International Energy Conservation Month. The B.C. Energy Commission's energy bus will also pay the campus a visit in the first week of October. For more on measures being taken to conserve energy on campus and a new view of UBC, turn to pages 2 and 3.

### CCE courses criticized

The UBC Senate's standing committee on continuing education will attempt to develop a "more articulate policy" on non-credit courses offered annually by the Centre for Continuing Education.

Prof. Donald MacDougall, chairman of Senate's continuing education committee, said he would ask it to

take a new look at CCE non-credit programs in replying to criticism of some fall, 1979, CCE courses by Dr. Jon Wisenthal, chairman of Senate's curriculum committee.

Dr. Wisenthal, speaking at Senate's

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See SENATE

### Safety group asks for survey

UBC's radiation protection officer William Rachuk has been asked to survey all University areas exposed to radiation and to ensure that all radioactive materials are stored according to international safety procedures and standards.

The request for the survey was made Tuesday by UBC's safety committee following the discovery last week of a quantity of radioactive sodium-22 in a storage room in the basement of the Mathematics Annex. The sodium-22 has now been shipped to Chalk River in Ontario for storage.

Safety committee chairman Bob Grant said the safety committee had been assured that the level of radiation of the sodium-22 found in the Math Annex was well below international standards.

enrolled for any specific degree program.

Faculties and degree programs where enrolment declines are indicated are Education, Forestry, Law and Architecture.

UBC's first-year class is up by about 150 students, mostly as a result of transfers from other post-secondary institutions and an increased number of mature students.

The second-year class is also up by about 250 students, most of it attributable to the fact that a higher number of students have decided to continue their education instead of taking a year off.

The third-year class is down about 150 students while the fourth-year class is almost identical in size to the one that was enrolled last year.

## Temperature rising for United Way campaign

The "temperature" should soon be on the rise on the United Way thermometer set up on Main Mall these days. The thermometer, set up opposite the Henry Angus Building, is measuring UBC's contribution to the Lower Mainland United Way campaign.

This year students, staff and faculty are actively involved in raising funds for the annual drive. UBC people have so far raised more than \$20,000, and much more is expected. Students donated the proceeds of admission to *The Cheap Detective*, a movie shown the first week of classes, to the campaign, as well as making donations of more than \$250 during the first football game of the season, Calgary vs. UBC Sept. 8. Monday's apple sale by Agriculture students also added to the campaign total.

Planned in the next few weeks are a "Pit night" on Wednesday, Sept. 26, when the AMS is donating one night's profit from Pit beer sales to the United Way. Campaign boxes will also be set up around the Pit,

and it's expected that more than \$1,000 will be raised.

During Commerce week in October there'll be a roller skating Skatathon on Thursday, Oct. 11, with participants taking pledges for distance rolled, followed by a campus-wide Octoberfest sponsored by the Commerce Undergraduate Society Friday night at the Italian Cultural Centre. All the proceeds from that evening will be going to the campaign.

The University administration has issued a "boat-race" challenge to student teams from the various faculties, with the beer-drinking contest to take place on Tuesday, Oct. 16, at noon hour. Each team must put up \$100, which will be donated to the campaign, in order to challenge the administration team.

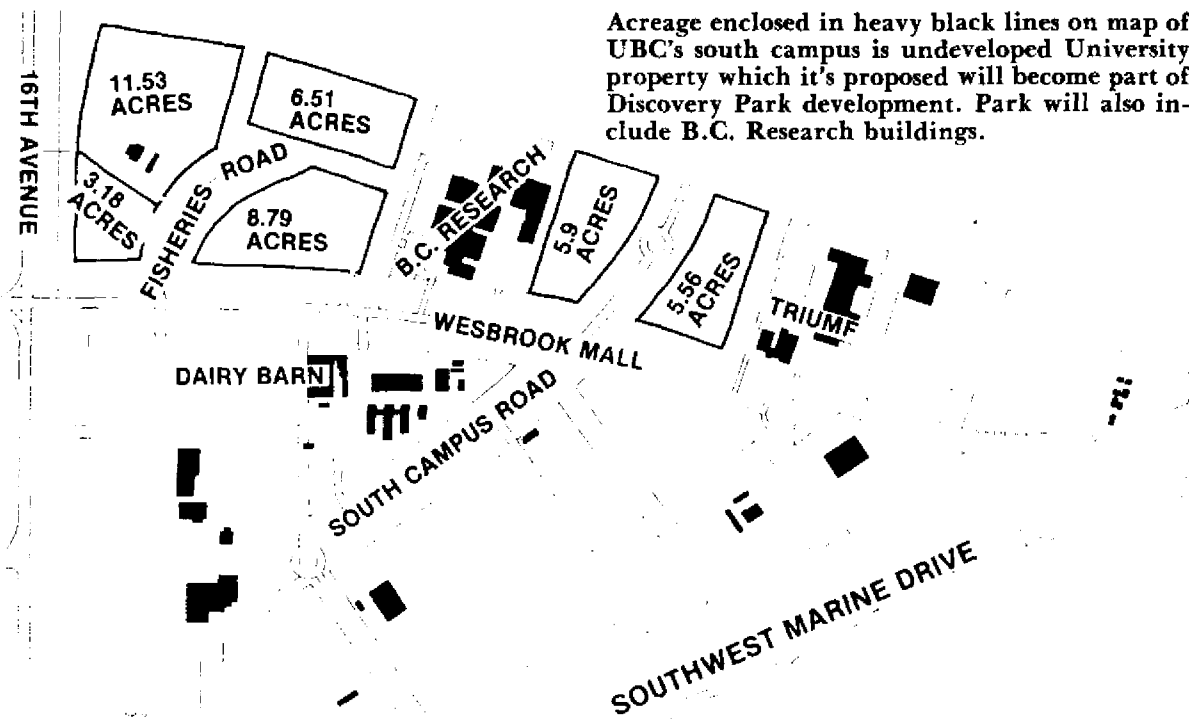
And of course, one of the big events of the fund-raising campaign will be the Shrum Bowl on Friday, Oct. 19, a football game between UBC and Simon

Fraser University. Last year, about \$40,000 was raised through ticket sales to the game.

Staff and faculty members at UBC will by now have received in the campus mail their pledge cards for payroll donations to the United Way. Although last year only about 15 per cent of all UBC faculty and staff made donations to the campaign, this year, organizers are hoping for 18 per cent to participate, and have set a target of raising \$100,000. They're asking faculty and staff to donate one day's pay to the United Way.

The campaign this year has been co-ordinated by a committee representing every faculty and staff organization, as well as the students, on campus.

United Way provides financial support to 76 agencies which offer a variety of "human care" services to the community. It is estimated that one in four persons receives help from United Way services in the Lower Mainland.



Acreage enclosed in heavy black lines on map of UBC's south campus is undeveloped University property which it's proposed will become part of Discovery Park development. Park will also include B.C. Research buildings.

**PARK**  
Continued from page 1

will also provide research opportunities for students and faculty at UBC.

The Discovery Park concept has been under review by UBC academic and administrative bodies for more than two years.

In June, 1977, each UBC faculty was asked to provide comments and views about the concept of a research park on campus. The replies, which

were summarized and forwarded to the provincial government, were uniformly positive.

UBC's executive committee on research and the advisory board on grants, contracts and research policy both responded enthusiastically to the Discovery Park concept, particularly in relation to the opportunities it would provide to increase interaction between researchers at UBC and those from industry and government.

UBC's committee of deans made

several recommendations that were carried into the negotiations with the provincial government, and the report of a 1978 ad hoc committee on UBC Discovery Park summarized the hopes and concerns of the University community and provided a set of guidelines which formed the basis of all subsequent negotiations.

UBC's Board of Governors has been carrying out continuing negotiations with Discovery Park Industries through most of 1979. Both sides expect a final agreement to be reached before the end of the year.

The area to be designated Discovery Park lies between Wesbrook Mall and the eastern boundary of the UBC campus. The park would begin at 16th Avenue and run south as far as TRIUMF, the nuclear research facility located at UBC. (See map on page 2.)

Included in the tract are 46 acres of undeveloped UBC land and roads as well as a 12-acre site occupied by B.C. Research, an independent, non-profit industrial research institute which offers services in the fields of applied biology and chemistry, engineering physics and management services.

One of the matters being negotiated is the University's right to approve all buildings and tenants, thus ensuring that research undertaken will be related to University interests and expertise. In his letter to faculty members, President Kenny said, "Naturally, the University will look most favorably on those applicants whose work will encourage fellowships, student aid and student summer employment."

Here are some of the details which have been the subject of the negotiations which are now nearing completion:

- Ownership of the land will remain with UBC and will be leased to Discovery Park Industries Ltd.;
- UBC will be represented on a board of management responsible for the day-to-day administration of Discovery Park;
- The University will approve all tenants and buildings in the park;
- Any land not used within 15 years will automatically revert to the University;
- All buildings in the park will become UBC property at the termination of the lease;
- All facilities in the park will be open to inspection by UBC officials at any time;
- All tenants must meet UBC standards with respect to environmental and pollution control; and
- Any expenses associated with the removal of University buildings, properties, services, etc., to other UBC areas will be borne by the developer at no cost to UBC.

## Minister promises look at student aid plans

Education minister Pat McGeer has agreed to review the need for improvements to existing financial aid programs for post-secondary students following a meeting with the

presidents of B.C.'s three public universities.

UBC president Douglas Kenny said that in addition to reviewing items of concern noted by the presidents, the education minister has also agreed to report the Universities Council of B.C. on financial aid and to provide responses to the report's recommendations.

During their meeting with the education minister the three presidents pointed out a number of inequities in the current system of financial aid for post-secondary students. These inequities underline a need to:

- Provide some grants as the first available option for students with exceptionally high need, followed by a mixture of loan and grant moneys;
- Give graduate students access to grants currently restricted to undergraduate students;
- Provide grants which reflect the extra costs faced by rural students moving to educational opportunities in urban centres;
- Reduce the impact scholarships and bursaries have in determining the size or amount of loans and grants;
- Adopt more realistic need-assessment tests for part-time students;
- Inform potential university students about available financial aid programs as early as grade 8, so that they can make informed choices about academic and vocational programs;
- Use changes to the Canada Student Loan Programs to develop more realistic criteria for assessing a student's financial dependence on parents and to reduce the amounts of expected parental contributions in cases of established dependency.

## SENATE

Continued from page 1

September meeting, said credit courses proposed for the UBC Calendar were subject to scrutiny at a number of levels within the University, but "it's not clear to me what scrutiny is involved in the selection of courses offered through the Centre for Continuing Education."

He said that half the listings in the latest CCE catalogue dealt with personal development, skills for self-management, career development, women in management and explorations of the human potential. He said these were "worthy courses, but they do give an odd impression of what we emphasize at the University."

He said a "clear majority" of those teaching the courses were not members of the UBC faculty. "The centre," he added, "may have trouble recruiting UBC faculty, and if they do I think that's a matter to be looked into."

He asked that the centre explain to Senate "just what its principles are for the selection of non-credit courses and what the centre perceives to be the purpose of non-credit courses offered."

Prof. MacDougall said the CCE course catalogue does not reflect nor is it representative of all the University's non-credit offerings, many of which are given in various UBC faculties.



## Thermogram seen as aid in energy conservation program

The "nighttime" picture of the central UBC campus reproduced above isn't a photograph. It's a "thermogram" taken on a cold, clear night late in 1977 and is designed to help the University's energy conservation program.

Expert analysis of several thermograms that show different temperature ranges at ground level and comparison with a daytime picture of the same area will enable the University to pinpoint areas on the campus where there may be heat-loss problems. More intensive, on-the-ground investigations can then be carried out with a view to taking corrective measures.

To make the thermogram, a federal government jet equipped with a thermal detector (a device that reads the apparent ground temperature at a distance) and other sophisticated equipment flew over the campus along the path of the thin black line in the middle of the picture.

The temperatures recorded by the thermal detector on magnetic tape cover a fairly wide range. As a result, when the temperature signals are processed, it's possible to produce a number of thermograms within specific temperature ranges.

UBC Reports chose the one reproduced above because it gives the clearest view of the central campus. The darkest areas indicate temperatures below -12 degrees Celsius (10.4 degrees Fahrenheit), while the whitest areas indicate temperatures that are higher than -8.67 degrees Celsius (16.4 degrees Fahrenheit).

In short, the blackest areas of the thermogram are giving off less heat than adjacent gray or white areas.

If the data on the magnetic tape were processed to indicate a higher range of temperatures, the amount of white area on the thermogram would increase and you wouldn't be able to see the building outlines.

One way in which the thermogram can be misleading results from the fact that the thermal detector scans the ground from left to right at right angles to the plane's flight path. As a result, the detector "sees" more of the sides of buildings at the top and bottom of the thermogram and only the roofs of the buildings directly below.

Thus, the buildings in the top left corner of the thermogram along University Boulevard (the V-shaped building is the Wesbrook Building) appear to be giving off more heat than, say, the Student Union Building (numeral 1) which is almost directly under the plane's flight path.

And, of course, tall buildings that are used intensively at night and have a lot of windows will appear as gray or white areas on the thermogram. A good example of this phenomenon is the Walter Gage Residence (numeral 2).

The white dots that appear on many campus buildings are circles of warm air that are escaping from exhaust fans located in washrooms or other facilities inside the buildings.

An example of the type of campus buildings

that would be the subject of a more intensive investigation by energy-conservation experts would be the Chemistry Building complex at the corner of University Boulevard and the Main Mall (numeral 3).

Some heat loss is to be expected from this complex for a number of reasons: it's one of the oldest buildings on the campus; it's heavily used at night; and the various units that make up the complex have to be equipped with numerous exhaust fans to remove noxious gases from the many laboratories in the buildings that make up the complex.

The Henry Angus Building (numeral 4), across the Main Mall from the Chemistry complex, also appears to be experiencing some heat loss, but again it's heavily used at night and the building's south wing (the white patch) is tall and has many windows.

One of the factors that will confuse the thermal detector and produce a distorted thermogram is water. Some of the gray-to-white areas that can be detected atop buildings could be pools of water resulting from inadequate drainage. And some of the gray areas could be a skin of ice that has formed on top of roof water.

For comparative purposes, the aircraft that takes the nighttime thermogram makes a second flight over the same area the next day and takes a daytime picture that will show water on roofs.

Areas where there is supposed to be water will, of course, show up as gray or white. Empire Pool (numeral 5) is a good example, as is the

shallow reflecting pool atop the Museum of Anthropology (numeral 6), which is experiencing some heat loss through the roof of its Great Hall. The lake in the Nitobe Garden is perfectly outlined beside the numeral 7. The dark patch in the lake is a small island reached by a footbridge.

The black, gray and white patches in this area and in other areas of the campus where there are no buildings are trees and grass for the most part. Treed areas are usually colder and therefore show darker, while grassy areas are usually wet and show as lighter areas on the thermogram.

A UBC spokesman who's studied the thermogram carefully says the following building roofs show minimal heat loss: War Memorial Gym (numeral 8), SUB (1), Bookstore (9), the new Anthropology and Sociology building (10), the new Law Building (11), and International House (12). The Aquatic Centre (13) and the Asian Centre (14) don't count because both were under construction at the time the thermogram was made and were unheated.

Buildings that exhibit a mixture of characteristics are: Main Library (15), the Buchanan Building (16), and the Mathematics and Geography buildings (17 and 18).

Buildings which appear to have a higher heat loss and which will need more detailed investigation include the Chemistry complex (3), Angus Building (4) and the Place Vanier Residence (19).

## Energy campaign boosted

October is International Energy Conservation Month and UBC will step up its own 1979-80 energy conservation program during this period.

A poster by Commerce student Stan Wong that took the \$500 first prize in a campus-wide contest last year will appear in UBC buildings, along with a brochure explaining UBC's energy situation and suggesting ways in which members of the University community can contribute to the conservation program.

And the B.C. Energy Commission's energy bus will be located in the covered outdoor alcove on the south side of the Student Union Building during the first week of October.

The bus analyzes energy consumption and pinpoints areas of possible savings at schools, hospitals, sawmills, mining operations and other locations throughout the province.

The bus's computer facilities will be on display and pamphlets, slide-tape programs and other information on ways to save energy will be available.

UBC's energy bill this year will be about \$3.5 million, or 22 per cent of the \$16 million students will pay in fees in 1979-80. UBC's energy bill has increased 32 per cent annually since 1976, and if the same rate of increase continues the annual bill will become \$6 million in just two more years.

UBC's Department of Physical Plant has made a number of mechanical and maintenance changes in recent years that are designed to substantially reduce campus energy consumption.

All outdoor lights have been changed to low-energy, high performance lamps. Winter room temperatures have been lowered in certain buildings and air conditioning temperatures have been raised. Lights in some buildings have been removed where lighting levels were higher than necessary.

Other changes have been made involving automated equipment in the campus power house, which provides steam for most UBC buildings, and in other energy equipment.

## Gifts sought

If you've been wondering how you might help the Vietnam boat people who are being brought to Canada, Prof. John Conway of UBC's history department has a suggestion.

Why not make a financial donation or some other form of contribution through the Tibetan Refugee Aid Society, created in 1962 by Dr. George Woodcock, a former UBC faculty member, to aid Tibetans who fled their country into Northern India.

Financial contributions or offers of housing, employment, translation services or language training are equally welcome, Dr. Conway says. Cheques made payable to the "Tibetan Refugee Aid Society (Boat People)" should be sent to the society's registered office at 4345 Locarno Crescent, Vancouver. V6R 1G2. Receipts for income tax purposes will be sent to donors.

## Red Cross back

The Canadian Red Cross returns to UBC Monday (Oct. 1) for the first of four blood donor clinics to be held during the first term on campus.

The first clinic in Rooms 207, 209, 211 and 215 of the Student Union Building continues until Friday (Oct. 6). Hours are 10 a.m. to 4 p.m.

# UBC Calendar

## UBC CALENDAR DEADLINES

Events in the week of

Oct. 7-Oct. 13 Deadline is 5:00 p.m. Sept. 27

Oct. 14-Oct. 20 Deadline is 5:00 p.m. Oct. 4

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

## THE VANCOUVER INSTITUTE

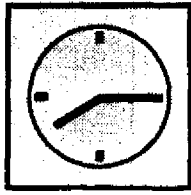
SATURDAY, SEPT. 29

Jean Erdman, The Theatre of the Open Eye, New York, on *The Dynamic Imagery of Dance*.

SATURDAY, OCT. 6

Prof. William G. Unruh, Physics, UBC, on *Black Holes — The Edge of the Universe*.

Both lectures at 8:15 p.m. in Lecture Hall 2, Woodward Instructional Resources Centre. A brochure listing all pre-Christmas Institute lectures is available from Information Services, UBC, telephone 228-5151.



## SUNDAY, SEPT. 30

8:30 a.m. **FIELD HOCKEY**, Canada West University women's championship. Matches at 8:30 a.m., 11:30 a.m. and 2:30 p.m. against the Universities of Victoria, Alberta, Calgary and Saskatchewan. Warren and McGregor fields.

3:00 p.m. **MUSIC FROM DIFFERENT CULTURES**, second in a series of seven presentations at the Museum of Anthropology. COORD: A 14-piece improvisational orchestra presentation by Community Orchestra Research and Development classical and jazz musicians. Museum, 6395 Northwest Marine Dr. Free with museum admission.

7:00 p.m. **SUBFILMS** presents Burt Reynolds in *Hooper*. Auditorium, Student Union Building. Admission with AMS card, \$1.

## MONDAY, OCT. 1

10:00 a.m. **URBAN LAND ECONOMICS Workshop**. Prof. Norm Carruthers, Policy Analysis Division, UBC, on *Pricing and Site Selection with Market Imperfections: Hoteling Revisited*. Penthouse, Angus Building.

**RED CROSS BLOOD DONOR CLINIC**. Continues until Friday, Oct. 6, in Rooms 207, 209, 211 and 215 of the Student Union Building. Hours are 10 a.m. to 4 p.m.

1:30 p.m. **COMPUTING CENTRE LECTURE**. First in a series of two lectures on *A Survey of Statistical Programs* by Teresa Tenisci of the UBC Computing Centre. Room 447, Computer Sciences Building.

2:30 p.m. **COMPUTING CENTRE LECTURE**. First in a series of 10 lectures on *The FORTRAN Programming Language* by Bruce Jolliffe of the UBC Computing Centre. Room 305B, Computer Sciences Building.

**COMPUTING CENTRE LECTURE**. First in a series of nine lectures on *Introduction to MTS Commands and Files* by Mike Patterson of the UBC Computing Centre. This course is intended for those who have no previous computing experience. Room 447, Computer Sciences Building.

**CHEMISTRY SEMINAR**. Dr. D.M. Doddrell, School of Science, Griffith University, Brisbane, Australia, on *Nuclear Relaxation Studies on Paramagnetic Transition Metal Complexes, or a Can of Worms*. Room 225, Chemistry Building.

3:30 p.m. **COMPUTING CENTRE LECTURE**. First in a series of nine lectures on *Introduction to MTS Commands and Files* by Tony Buckland of the UBC Computing Centre. This course is intended for those who have some experience with using the MTS or some other operating system. Room 447, Computer Sciences Building.

**APPLIED MATHEMATICS SEMINAR**. Prof. Brian Seymour, Mathematics, UBC, on *Quadratic (Sub-Harmonic) Acoustic Resonance*. Room 203, Mathematics Building.

5:45 p.m. **MECHANICAL ENGINEERING SEMINAR**. Dr. H.I.H. Saravanamuttoo on *Impact of the Aircraft Gas Turbine on Non-Aircraft Applications in Canada*. Room 1215, Civil and Mechanical Engineering Building.

## TUESDAY, OCT. 2

12:30 p.m. **BOTANY SEMINAR**. Dr. Dave Garbary, UBC, on *How Many Genera in the Acrochaetiaceae (Rhodophyta)?* Room 3219, Biological Sciences Building.

**HILLEL HOUSE** presents Israel Program and a falafel lunch. Hillel House.

**BIOCHEMISTRY SEMINAR**. Dr. Christian Raetz, Biochemistry, University of Wisconsin, Madison, on *Genetic Modification of Enzymes Catalyzing Membrane Lipid Biogenesis: Isolation of Bacterial and Somatic Cell Mutants by Colony Autoradiography*. Lecture Hall 4, Woodward Instructional Resources Centre.

1:30 p.m. **ELECTRICAL ENGINEERING SEMINAR**. Dr. J.K. Cavers, MDA Ltd., on *Standard Interfaces to Digital Networks*. Room 402, Electrical Engineering Building.

**FACULTY WOMEN'S CLUB** first meeting of the season. There will be registration for interest groups and Dr. Hannah Poloway will speak on *The International Year of the Child*. Cecil Green Park.

3:30 p.m. **METALLURGICAL ENGINEERING SEMINAR**. Dr. Rod McElroy, B.C. Research, on *Environment and Technical Problems in Gold Extraction*. Room 308, Forward Metallurgy Building.

4:30 p.m. **CHEMISTRY SEMINAR**. Dr. Emil Roduner, Physikalisch-Chemisches Institut der Universität, Zurich, on *Structure and Reactivity of Organic Free Radicals by Muon Spin Rotation*. Room 250, Chemistry Building.

## WEDNESDAY, OCT. 3

12 noon **THE CHANGING WORLD** presented by UBC's Centre for Continuing Education. Dr. Julia Levy, Microbiology, UBC, on *Cancer and Immunology*. Theatre, Robson Square Media Centre, 800 Hornby St. in downtown Vancouver. Further information from 228-2181, local 273.

**PHARMACOLOGY SEMINAR**. Dr. R.A. Wall, Chemistry, University of Edinburgh, Scotland, on *Dynamic Soap Chromatography: HPLC Separation of Peptides*. Room 114, Block C, Medical Sciences Building.

12:30 p.m. **FOREST ENTOMOLOGY LECTURE**. Prof. Ron W. Stark, College of Forestry, University of Idaho, on *What have Big Bug Programs Done for Forestry*. Room 166, MacMillan Building.

**NOON-HOUR CONCERT**. Sharon Krause, piano, performs Music of Bach, Mozart, Chopin and Liszt. Recital Hall, Music Building.

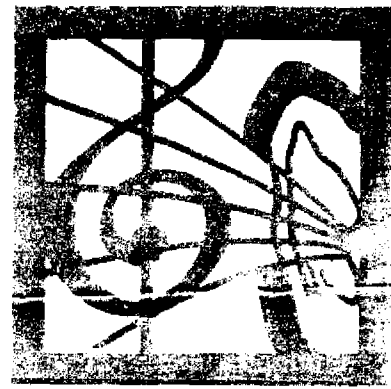
**HABITAT LECTURE SERIES on Urban Design and Settlement Policies**. Prof. Wilhelm Viggo von Moltke, 1979 Scholar-in-Residence, Centre for Human Settlements, UBC, on *Istanbul in the 1970s*. Room 102, Lasserre Building.

**AMS MINI-SERIES CONCERT** with Zingo. Admission, \$1, with proceeds to CFOX Children's Hospital Fund. Auditorium, Student Union Building. Tickets from AMS Business Office.

2:30 p.m. **SLAVONIC AREA STUDIES SEMINAR**. Vladimir Bukovsky, author of *To Build a Castle — My Life as a Dissenter*, on *Growing Up in the Soviet Union*. Room 2250, Buchanan Building.

3:30 p.m. **STATISTICS WORKSHOP**. Prof. P.M. Robinson, Commerce and Business Administration, UBC, on *Asymptotic Properties of Estimators of Models Containing Limited Dependent Variables*. Room 214, Angus Building.

4:00 p.m. **ENERGY POLICY MODELING SEMINAR**. Dr. John Weyant, *Energy Modeling Forum*, Stanford University, Calif., on *United States Oil and Gas Supply*. Penthouse, Angus Building.



Music on campus  
Classics on Wednesday noon, AMS concerts Wednesday noon and Friday night

## 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 228-3996.

## FREE LEGAL ADVICE

The UBC Law Students Legal Advice Program offers free legal advice to people with low incomes through 19 clinics in the Lower Mainland. For information about the clinic nearest you, please telephone 228-5791 or 872-0271. Advice is also available on sponsoring Vietnamese refugees.

## BAGPIPERS

Any pipers among faculty, staff or students who are interested in getting together to play are asked to contact Edward Mornin, Germanic Studies, 228-5140.

## FINAL ORAL EXAMINATIONS FOR THE DEGREES OF DOCTOR OF PHILOSOPHY AND EDUCATION

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

Monday, October 1, 2:00 p.m.: ANTHONY D.M. SMITH, Zoology; Adaptive Management of Renewable Resources with Uncertain Dynamics.

Thursday, Oct. 4, 9:00 a.m.: ALFONSO R. CONDAL, Geophysics and Astronomy; Near Infrared Observations of Compact Nebulae with the UBC Reticon Array Systems.

Thursday, Oct. 4, 1:00 p.m.: THOMAS JOE O'SHEA, Education; An Application of the Rasch Logistic Model to the Assessment of Change in Mathematics Achievement. (Conference Room.)

Thursday, Oct. 4, 2:30 p.m.: WILLIAM C. CLARK, Zoology; Spatial Structure and Population Dynamics in an Insect Epidemic Ecosystem.

Friday, Oct. 5, 3:30 p.m.: PETER F. ROWAT, Computer Science; Representing Spatial Experience and Solving Spatial Problems in a Simulated Robot Environment.

## WEDNESDAY, OCT. 3 (Continued)

**ASTRONOMY SEMINAR**. Dr. Lawrence Aller, Astronomy, UCLA, on *The Spectra of Gaseous Nebulae*. Room 260, Geophysics and Astronomy Building.

4:30 p.m. **ECOLOGY SEMINAR**. Dr. Wren Green, Forest Research Institute, New Zealand Forest Service, on *Ecological Research on New Zealand's No. 1 Pest (excluding man), The Australian Bush-Tailed Possum*. Room 2449, Biological Sciences Building.

## THURSDAY, OCT. 4

12:10 p.m. **WOMEN IN JEOPARDY**, a series of lectures presented by the Centre for Continuing Education, UBC. Debra Lewis discusses *Prostitution*. Women's Resources Centre, 1144 Robson St., Vancouver. Free.

12:30 p.m. **PHILOSOPHY LECTURE**. Dr. Robert Solomon, University of Texas, on *Sex and Perversion: A Philosophical Perspective*. Room 177, Law Building.

1:00 p.m. **FACULTY ASSOCIATION General Meeting**. Room 100, Mathematics Building.

2:30 p.m. **PHYSICS CONDENSED-MATTER SEMINAR**. Peter Martin, UBC, on *Proposed Intercalation Studies by Perturbed Angular Correlations*. Room 318, Hennings Building.

3:30 p.m. **MATHEMATICS COLLOQUIUM**. Prof. Peter Lancaster, University of Calgary, Alberta, on *Factorization of Polynomials*. Room 101, Geography Building.

4:00 p.m. **PHYSICS COLLOQUIUM**. Phillip Gregory, UBC, on *Radio Patrol of the Milky Way*. Room 201, Hennings Building.

7:00 p.m. **SUBFILMS** presents Gregory Peck and Laurence Olivier in *The Boys from Brazil*. Auditorium, Student Union Building. Repeated Friday and Saturday at 7:00 and 9:30 p.m.; Sunday at 7:00 p.m.

8:00 p.m. **SYDNEY ISRAELS MEMORIAL SEMINAR**. Dr. Berry Brazelton, The Children's Hospital Medical Centre, Boston, Mass., on *Perinatal Health — Development of Sick Newborns*. Lecture Hall 2, Woodward Instructional Resources Centre.

## FRIDAY, OCT. 5

9:00 a.m. **SYDNEY ISRAELS MEMORIAL SEMINAR** Pediatrics Grand Rounds. Dr. Pamela Fitzharding, The Hospital for Sick Children, Toronto, on *Perinatal Health — Followup*. Lecture Hall B, Vancouver General Hospital.

12 noon **DENTISTRY SEMINAR**. Dr. John Garrett, King's College, London, on *Analysis of Amalgam Tattoos: What is the Fate of the Mercury?* Room 588, Macdonald Building.

12:30 p.m. **HILLEL HOUSE** presents Succot Building Lunch at Hillel House.

1:00 p.m. **GENETICS SEMINAR**. Dr. S.L. Yong and house staff on *Clinical Case Presentations*. Conference Room, 4th floor, Health Centre for Children, Vancouver General Hospital.

3:30 p.m. **MATHEMATICS COLLOQUIUM**. Prof. Stefan Hildebrandt, University of Bonn, on *Free Boundary Value Problems for Minimal Surfaces*. Room 1100, Mathematics Building Annex.

8:30 p.m. **AMS MINI-SERIES CONCERT** with Pointed Sticks. Admission, \$5. Ballroom, Student Union Building. Tickets from AMS Business Office.

## SPECIAL COLLECTIONS DISPLAY

Mining British Columbia from the Fraser River Gold Rush to the 1970s throughout B.C. will be displayed in the Special Collections division of the Main Library throughout September. Display includes gold scales and a miner's gold poke, as well as books, manuscripts, maps and photos. 6th floor, Main Library.

## VOLUNTEER OPPORTUNITIES

The UBC Health Sciences Centre has daytime openings for volunteers in the Extended Care Unit, average age of residents 84 years, call 228-4919; and nighttime openings in the Psychiatric Unit, call 228-3036.

## FACULTY CO-ED VOLLEYBALL

A team is being set up to play other teams in the city. Inexperienced players welcome. Call 228-5925 or 266-9826.

## MUSEUM EXHIBITS

The Museum of Anthropology presents *The Gallery Collection: 10 New Northwest Coast Indian Silkscreen Prints*. Display continues in the museum rotunda until Sept. 30.

*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. It continues at the Museum of Anthropology until Nov. 4.

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. Museum is open Tuesdays, noon to 9 p.m.; Wednesdays through Sundays, noon to 5 p.m.

## CRANE MEMORIAL LIBRARY

Crane Memorial Library is looking for good readers to record books for the blind. Anyone interested in recording text and research materials or literary readings for blind and handicapped students at UBC and throughout the province is invited to call the Crane Library to arrange for an audition. Readings will be recorded in the new Recording Centre and readers are requested to devote at least two consecutive hours per week for recording sessions. For further information, call 228-6111.

