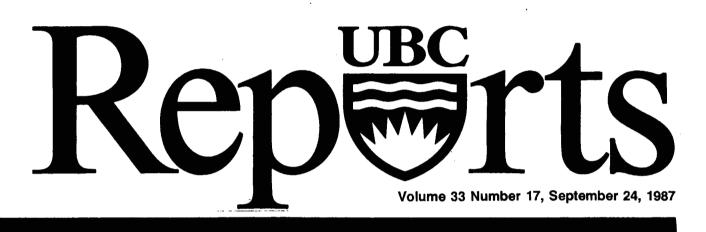
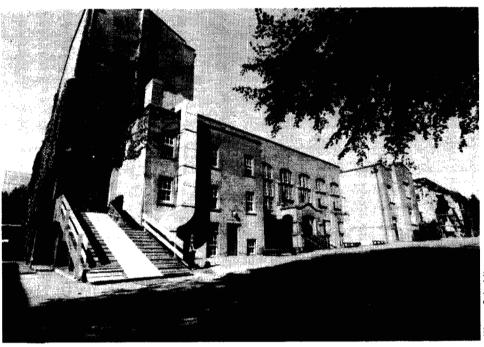
UBC Archives Serial



Crumbling campus needs high capital infusion University faces building crisis



UBC's Auditorium is a prime example of the building maintenance crisis. Its ceiling collapsed in 1970. Fortunately, the building was not occupied at the time. "It could have been a catastrophe," said Physical Plant Director Neville Smith.

Commercialism hit in athletic review Implementing stringent budget controls.

by Jo Moss

Commercialism is becoming disturbingly evident in some of UBC's athletic programs, according to a task force review of campus athletics and sports services.

The presidential task force, headed by Vice-President of Students and Academic Services K. D. Srivastava, places the blame on the spiralling costs of maintaining successful teams

It recommends establishing strict controls to prevent athletic programs from being exploited by business interests. And it warns that lowering academic standards in favor of elite performance has no place in UBC athletic programs.

The text of the task force's report is contained in this issue of UBC Reports.

Many Canadian universities place athletics in Faculties and Schools of Physical Education. where the programs have an educational focus and the department head has total control. In many major American institutions, athletics are strictly commercial enterprises funded by

by Debora Sweeney

UBC urgently needs a multi-million dollar infusion of capital to build desperately-needed new buildings and keep the old ones from falling apart, according to a report prepared for the provincial government.

The situation is a crisis, the report concludes, and without proper funding the university may not recover.

The estimated total cost of replacing several buildings due for demolition and catching up on repairs and renovations which are long overdue is nearly \$220 million.

While UBC President David Strangway applauds the provincial government for its strong commitment to funding ongoing maintenance projects, he said it is crucial that the university receive sufficient funding to repair and replace a backlog of seriously deficient campus buildings.

"If the backlog problem and building needs problems aren't addressed, we can't continue doing the first rate research we do, we can't continue operating the library as a resource, we can't serve our community as effectively as we have," said Strangway.

According to a report by Neville Smith, Director of Physical Plant at UBC, the physical condition of the campus deteriorated excessively as a result of government fiscal restraint from 1982 until 1986. During those years, funding rates for plant maintenance and construction for B.C.'s universities, UBC, SFU and U Vic, fell below one per cent of the new construction cost of their physical plants. In the case of UBC, the present value of the buildings, grounds and utility systems on campus, is \$805 million. In his report, Smith said the consensus of several university authorities is that in order to sustain a campus, annual funding of one-and-a-half to two per cent of the plant's replacement value is critical.

During the last 10 years, even before the provincial restraint program was introduced in 1982, the annual funding rate has never been as high as the recommended one-and-a-half per cent. The highest level, reached in 1977 and 1979 was 1.4 per cent. The lowest level of funding was 0.3 per cent in 1983 and 1984.

The days of restraint now appear to be over. The provincial government has approved \$8.3 million in capital funding to UBC for 1987/88. For the first time in five years, the university's maintenance funding is back up to one per cent of its new construction cost

"The government deserves credit for

moving systematically to improve funding for renovations," said Strangway. "They are doing a great deal to try to address these issues and help us deal with the ongoing problem.'

Strangway is encouraged and delighted about such projects as a new \$16.4 million chemistry/physics building and the installation of a sprinkler system in the main library. Those projects will restore some of the provincial safety code standards -- but not all of them.

In his report, Smith said all of the original buildings on campus fall far short of safety code standards.

Smith said it is going to cost \$137 million to repair the backlog of neglect established during the years of fiscal restraint. He suggested the money should be spent over 20 years to bring UBC buildings back to satisfactory condition. That does not include annual maintenance costs. Here is the breakdown:

* Sixteen buildings should be demolished within 5 years, at a cost of \$1 million. They include the Armoury and the temporary huts constructed after World War II.

* Nine buildings have a 'planned life' of 6 -10 years, at a renewal cost of \$7.3 million. They include the Main Mall North Administration building, the Mathematics building and the Mathematics annex.

* Fourteen buildings have a 'planned life' of 11 - 25 years, at a renewal cost of \$23 million. They include Cecil Green House, the Anthropology and Sociology buildings and the War Memorial Gym.

* Forty-five buildings have a 'planned life' of 26 - 50 years, at a renewal cost of \$105 million. They include the Main Library, Hennings, Sedgewick Library, the Student Union Building and Hebb.

Strangway noted that while the report states several buildings should be demolished, there are no recommendations on how to replace them. He said those recommendations must be contained in a Needs Report, which the university is preparing for the provincial government.

"I think we'll probably see another number that's in the \$120 to \$150 million dollar range of what's really needed to properly complete this campus to bring it up to standard," said Strangway, "not only with respect to maintenance and ongoing renovations, but the things that are purely temporary and the things which were never completed.

Strangway said the other crisis the

See Buildings P. 2

Education faculty revamps curriculum

by Lorie Chortyk

The first major overhaul of the education faculty's curriculum in more than 30 years will place an increased emphasis on classroom

Providing a better forum of

athletic and sports programs.

use of campus sports facilities.

Committee.

involvement.

communication for the many groups who use

Creating a committee to coordinate the

Providing for greater student and alumni

"UBC is fairly unique in that students pay a

See Athlete P. 2

Revitalizing the University Athletic

substantial part of athletic costs," Vertinsky

said. 'The council heard from many students

who felt that the university wasn't using their

consultation with the B.C. Ministry of Education, numerous teachers' organizations, including the B.C. Teachers' Federation, school superintendents and student

organizations.

have completed three years of general university studies. The program comprises two years of education courses and school experiences. An extended practicum, a full school term in length, takes place during the

alumni and business interests.

"Those are the two extremes and we're sitting in the middle. UBC has elements of both sides," said council member and physical education professor Patricia Vertinsky. "Should all programs at UBC be carried out strictly from an educational point of view, or should having successful teams be the priority?

The report points out that this controversy is neither new nor unique to UBC.

But, the report says, UBC can have the best of both worlds. The task force recommends incorporating the best features of each scenario, but calls for stricter accountability all round.

It says that by making athletics and sports services report directly to the President's Office, the goals of non-commercialization in sports, providing an educational focus in athletic programs, and treating men's and women's athletics equally, can be met.

Recognizing the urgency of the situation, the task force recommend implementing several changes by the beginning of next year.

 Streamlining the management structure of athletics and sports services.

practice and special education, according to the new dean of education.

Dean Nancy Sheehan, who joined the university this May, said the new program reflects the challenges and responsibilities facing teachers in the 1990s.

'It addresses changes that have taken place in the school system in recent years, such as the growing number of mildly physically and mentally disabled students being mainstreamed into regular classrooms, the increasing demand for French Immersion instruction and the multicultural dimension of today's schools," she said.

These factors are beginning to affect all teachers, not just those who have chosen to specialize in the areas.

"Another aspect we're particularly concerned about is preparing students as thoroughly as possible in instruction and classroom management techniques," she said. "The practicum period for students in both the elementary and secondary programs has been extended to give students more training in this area.'

The new curriculum was developed by a 15-member committee after discussion and

To enter the new program, students choosing the elementary teaching option must

Hang tough

Education Dean Nancy Sheehan says students interested in a teaching career shouldn't be discouraged by the current job situation in B.C.

'The B.C. government predicts that in the next few years the province will need between 1,800 and 2,000 more elementary and secondary teachers," she says. "The recent baby boom is creating a demand for more teachers, and the provincial government's early retirement incentives for teachers are creating vacancies throughout B.C."

She adds that French immersion, special education, math and science teachers are still in demand in the Lower Mainland.

Teachers who specialize in subjects such as English and social studies are the ones having to go out of town to find work at the moment. But I think we'll see this situation turn around in the next few years."

fall of the second education year.

To qualify for a degree in secondary education students must complete a bachelor's degree in one, or preferably two, approved teaching subjects and complete a full calendar year of education courses and practica. Students qualify for a professional teaching certificate at the end of the full-year program, and can complete their B.Ed requirements with an additional summer session.

"Both of the new programs provide preparation in special education," said Sheehan. "In addition there are opportunities to specialize in this field, as well as to take a specialized option in French Immersion or multicultural education.

Apart from getting the new curriculum off and running, Sheehan said her most important goal as new education dean is to promote research in the faculty.

"Faculty research has increased enormously in the past five years, and we now attract more education grants from the Social Sciences and Humanities Research Council than any other institution across Canada," she said. "I'd like to see this growth continue."

The artist's pen is mightier than the scalpel



UBC to support daycare facility

by Lorie Chortyk

The university will help finance a new facility to house UBC day care and the Faculty of Education's Child Study Centre.

Dr. K.D. Srivastava, vice-president for student and academic services, said the university is prepared to match donations up to a maximum of \$500,000 to replace UBC's old day care huts, which have been condemned by the fire department as of April 1 next year. The huts have been used to provide day care for children of students, staff and faculty for almost 20 years.

The Alma Mater Society has pledged \$350,000 for the project, and additional funding is being sought, Srivastava said.

In May the proposal for the new day care centres was expanded to include space for the

Food research

UBC's food science department has entered a formal agreement with the Fisheries and Food Products Branch of B.C. Research to promote joint research related to B.C.'s agricultural and fisheries resources.

It's the first such agreement between a UBC department and B.C. Research, an independent and non-profit research facility located on the campus.

Prof. Bill Powrie, head of the food science department, said researchers from the two areas will be working together to develop new food products, create advanced technol

Child Study Centre, a research and demonstration facility which currently operates out of Kitchener School Annex in Vancouver. It offers pre-school programs for children aged one to five and provides the setting for a wide range of research projects

Both UBC Day Care coordinator Mab Oloman and Child Study Centre director Glen Dixon see the move to bring the two units together as a positive one.

"The Child Study Centre is an exemplary facility for early childhood research, and together I think we could establish a model centre for child care and research," said Oloman.

Dixon added that he is gratified by the support shown by the university for the project. Even though UBC operates the largest

pact signed

been carried out on problems related to the spoilage of fish and the frozen storage of salmon eggs.

Powrie said the new agreement will allow a more coordinated research effort to take place.

"In the past collaborative work has been done, but it's been on an intermittent basis, as projects arose," he said. "The agreement encourages the on-going exchange of ideas between our faculty members and students and the experts at B.C. Research.

Under the agreement two UBC faculty be appointed B.C. Re associates and two senior staff members from B.C. Research will become adjunct professors in the food science department. Researchers involved in collaborative projects will have access to equipment and facilities at both organizations.

campus day care facility in Canada, Oloman said it's impossible to keep up with the overwhelming demand for child care services.

When we recently set up our infant care program, we had 40 requests for nine positions before we'd even advertised that the program was available," she said.

UBC's 12 day care units are autonomous and self-governing, providing child care for 275 children ranging from infants to schoolage children up to 12 years. Nine of the 12 units are housed in the condemned wooden huts which were built as temporary structures in 1939.

More than 60 per cent of the parents who use the centres are students, and 55 per cent of these are graduate students. Faculty parents make up 23 per cent of the users, and 10 per cent are UBC staff members.

Monthly fees for full-time care range from \$625 for infants, \$500 for toddlers, \$330 for preschoolers and \$130 for school-age children

The day care centres are used extensively for research and observation. In recent years the centres have been used by faculty and students in architecture, education, linguistics, psychology, nursing, audiology and speech sciences, dental hygiene, family and nutritional sciences, medicine and physical education.

All early childhood programs offered by Lower Mainland colleges, and some in other parts of B.C., also use the day care units and UBC's Child Study Centre as teaching facilities.

by Debora Sweeney

Most 11-year-old boys draw pictures of things like hot cars.

Not Bruce Stewart.

"I was always drawing pictures of hearts and ears and lungs and gizzards and whatnot," said Stewart. "I had a neighbour who was a pathologist who encouraged it by letting me come to the pathology museum at V.G.H. and draw specimens. The family got used to it - but they drew the line when I wanted to bring the specimens home."

Today, 30 years later, Stewart is the coordinator of the art division of biomedical communications -- part of the Faculty of Medicine at UBC. His job is to produce 'bloodless' illustrations for textbooks, medical journals, audio/visual presentations and television programs.

"Normally when you go into surgery, there's everything but what you want to see," said Stewart. "Most people see nothing but hands and towelling and blood and instrumentation. I look through the skin and organs and show what's on the other side.'

Several of Stewart's medical illustrations are tacked up on the walls of his office basement nook in the IRC building. Hanging from one wall is everything from a didactic illustration of a pap test for a nursing journal, to a stylistic illustration of discs between vertebrae, to a highly-animated Mad Magazine - type picture of Dr. Frankenstein pinned down on a lab table by the monster. The latter was used to add life to a TV program about lab

management. Stewart, who has an undergraduate zoology degree, often works in front of a television screen with a microphone at his side. The TV is connected live to an operating room. He discusses the operation with the surgeon -- the surgeon tells Stewart what he's doing and what must be illustrated; Stewart asks questions and tells the surgeon when he can't see what's going on. Later, he reviews the

video frame-by-frame to illustrate the operation as accurately as possible. That is what Stewart does from nine-tofive. He devotes his spare time to other artistic endeavors. He paints pictures which combine the realism of his medical knowledge with a

surrealistic view of life. "Now, here's a picture of a lady who used to work here," he said. "I pictured her as the owner of a rather sleazy Southern Californian tavern -- and there she is with her biker friends. There's a little bit of truth in that one."

Stewart has done dozens of canvasses. which include themes of old cars and memorabilia in modern surroundings. as well as 'celebrity dissections' which include Marty Feldman's eyes and Dolly Parton's chest.

"In many cases, medical textbooks have very run-of-the-mill, very anonymous looking people," said Stewart. "I thought in this case, let's not make them look anonymous, but superfamous.'

Those pictures are definitely not for publication in medical textbooks.

"Somebody suggested that I do it (publish the celebrity pictures), get sued, lose everything and then become internationally infamous," said Stewart. "I thought, am I ready for that kind of a career change?

He is not, although Stewart said his five year goal is to retire from his nine-to-five life and focus on his art full time. He said eventually, he would like to publish all of his work as an anthology.

food processing and storage, and to examine ways to preserve the nutritional value of food during processing and storage.

Collaborative research between UBC food scientists and B.C. Research is not a new venture. In recent years, joint research has

Buildings from P. 1

university faces is what he calls, the "unfinished campus."

"We must be one of the only universities in North America that doesn't have a major convocation hall for ceremonies, recitals and plays," he said. "Our library is absolutely at the limit, we're short of lab space, not to mention the fact that we're operating in all of these huts and temporary buildings and so on.'

Strangway said the university's commitment is to continue to meet the responsibility undertaken by the founders of UBC to be a first-rate university serving the ongoing needs of the province.

'To do this requires suitable and appropriate facilities," he said.

UBC REPORTS September 24, 1987 2

'87 tour season one of the best

The summer of '87 was one of the most successful ever for UBC's summer tour program.

Nearly 1,500 people took part in guided walking tours around campus -- a significant increase over last year in spite of the influx of visitors to Vancouver for EXPO '86.

The Community Relations Department has developed specialized tours for four main target groups: children, disabled people, ESL/exchange groups and seniors. As well, a self-guided walking tour brochure that indicates major points of interest will be available for distribution by the summer of '88.

Athlete from P. 1

money in the best interest of sports participation for all."

According to Vertinsky, alumni already play a large role in university athletic policy. Last year they provided about \$200,000 to fund UBC athletic programs. With an increase in their support, UBC could continue to produce successful athletic teams.

"If we want to produce top performance teams and bring in more top-level coaches, we've got to have the money to do it and we should not expect a university administration to foot that bill," Vertinsky explained.

To attract more alumni involvement, the report recommends that a UBC alumnus head the new University Athletic Committee, reporting directly to the President's Office.

University teams are the most visible and controversial part of UBC's athletics and sports services. They're also the largest, gobbling almost half of the total \$2 million budget.

The 18 men's teams include ice hockey, football and rugby--three sports not matched by the women's 15 team roster. Despite the

small difference in number, last year's budget for women's athletic teams was less than half the \$611,700 allocated for men's.

The report promises to resolve the discrepancy in the treatment of men's and women's teams

"I'd like to see women athletes get a fair shake," Vertinsky said.

Travel costs are cited as a major expense for top-level men's teams. UBC pays for its location at the western end of the country.

Other programs covered by UBC athletics and sports services are: Community Sports, a popular summer program for kids; RecUBC, non-credit courses available to the university and outside community; and intramural sports, run through the Alma Mater Society.

Although it's an autonomous department. athletics and sports services shares a building. some staff and coaches with Physical Education. The two must also share access to campus sports facilities. According to Srivastava, it's a relationship that has operated under considerable stress and confusion over the last few years.

THE UNIVERSITY OF BRITISH COLUMBIA

Report of the



President's Task Force

to Review

Athletic and Sport Services

1. INTRODUCTION

.

<u>الم</u> مرجع

K

~

5

In February 1987 President D.W. Strangway requested that a review be conducted into UBC Athletic and Sport Services. The Review Committee was requested to review and report by March 31, 1987 on the following:

- 1. The administration and management structures.
- 2. The relation between Athletics and the School of Physical Education and Recreation.
- 3. The interrelationship between the various athletic and sport programs, including procedures for establishing priorities.
- 4. The operation and role of the University Athletics Council (UAC) and the Men's and Women's Athletic Committees (MAC and WAC).
- The membership of the Review Committee is shown in Appendix 1. The Review Committee has had 14 meetings to discuss the various issues and options. In early April a discussion paper outlining the issues and options was given wide circulation and a brief report was made to the Board of Governors. The Review Committee has formally met with the Alma Mater Society (AMS) Executive, the Department of Athletic and Sport Services and the School of Physical Education and Recreation. In addition to the above meetings the Review Committee has requested, and received, input from a large number of alumni, students, faculty and staff. The Department of Athletic and Sport Services and the School of Physical Education and Recreation have made formal submissions to the Review Committee. These are included as Appendices 2 and 3.
- The issues and concerns affecting the operation of the athletic programs at UBC are complex, and, in large measure, are a result of the historical growth of athletic programs and facilities. UBC has a long tradition of student, alumni and community support going back to the Great Trek, and is

human kinetics, health studies and the sociology of recreation. At UBC the development of athletic and sport activities and the School of Physical Education has been a cooperative effort of the personnel within the School and the Department of Athletics. In recent years the research orientation within the School has become dominant, with a particular focus upon graduate education.

Since about 1983 the working relationships between the students, the Department of Athletics, the School and alumni have become strained. Shortage of facilities for the AMS intramural programs, financial restraint, the UBC retrenchment plans, a rapid succession of administrative personnel in the President's Office, imposition of a \$32.00 student activity fee, and the establishment of the UAC with an ambiguous and poorly understood role and mandate have all contributed to a sense of frustration and anger amongst students, staff, faculty and administrators, and to an atmosphere in which innuendos have become rife.

Given the above background, and the need to arrest any further deterioration of programs and morale, the mandate of the Review Committee was specifically defined to address the matters of management structures and inter-relationships between programs and between the various interest groups (students, faculty, alumni, athletic staff and community). No performance reviews of individuals were intended or conducted except to the extent that staffing policies affected the operation of the athletic and sport programs.

The Review Committee, from the information gathered, has been able to identify several issues and concerns, and possible options for a satisfactory resolution of these, and for establishing a mutually enhancing framework for future operations of the Department of Athletic and Sport Services and its relationship with the School of Physical Education and Recreation.

2. ISSUES

On several occasions, the Review Committee heard of concerns that, without a significant anchoring and control of the athletic and sport programs through the academic thrust of the School of Physical Education, there is real and imminent danger that our programs could be exploited by commercial interests, and that the academic standards of our high performance student athletes could deteriorate. The Review Committee strongly supports the view that the athletic and sport programs are an integral part of the educational process, and close liaison and cooperation with the School of Physical Education are important and highly desirable. We hope that the past traditions and current policies at UBC for admissions and establishing scholarships will act as an effective deterrent against academic dilution.

Finally, at UBC, there is an old and continuing tradition of our students willingly and actively initiating, supporting and promoting athletic and sport programs and facilities. For the discussion that follows the Review Committee has taken this tradition to be another important element of our particular contextual framework.

2.2 Programs

2.2.1 Intramurals

Intramural programs have two main objectives: First, to provide opportunities for competitive recreational and participatory sports, and secondly, to increase social interaction amongst students, faculty and staff on campus. A list of activities is included as Appendix 4. During the 1986-87 season, there were approximately 6000 participants. The participation rate at UBC is lower than at several major west-coast universities. This may be because of the fragile nature of the program finances and lack of adequate facilities.

Program planning and priorities are established through student administrators and representatives at an annual week-end retreat. Dr. N. Korchinsky is the Director, and the administrative offices are located in the Student Union Building. The total budget for 1986-87 was approximately \$409,000 and was derived from three sources: (a) from the Department of Athletics \$155,000, (b) from AMS student fees collected by the University @ \$4.50 per capita—\$104,000, and, (c) from participation fees \$150,000. The actual expenditure during the 1986-87 fiscal year is expected to be \$413,000. For the 1987-88 fiscal year a budget request of \$390,000 has been made to the UAC:

unique amongst Canadian universities in that the initiative and a very substantial part of the initial capital for the athletic facilities have come from its students, alumni and friends, and special grants and donations. The university central administration, by and large, has not played an active role in fund raising for new facilities; however, once the facilities are completed, it has provided the necessary and substantial infrastructure costs.

Shortly after the Point Grey Campus was occupied in 1926, a stadium and gymnasium were built for athletic activities. All the major existing facilities were constructed after the Second World War: War Memorial Gymnasium in 1951, Empire Pool in 1954, Thunderbird Winter Sports Centre in 1963 and 1968, Osborne Physical Education Centre in 1970 and 1972, and finally, the Aquatic Centre in 1978.

The School of Physical Education was established in 1946 due to the efforts of the UBC staff who were engaged during the War in the two-year compulsory Physical Education program. At UBC the academic programs were thus added to the existing athletic and sport activities and facilities. The principal academic focus within the School has changed over the years from the education and training of school teachers to education and research in the highly technical science of

2.1 Athletics and Sports at UBC

The various issues and concerns affecting the athletic and sport programs at UBC are discussed below under three interrelated categories: Programs, Facilities and Management Structures. However, before embarking on a detailed review of the issues it is essential to establish a contextual framework for the role and place of athletics and sports in any educational institution.

Athletics and sports have become a part of the western educational tradition. Such activities are generally considered not only important for students' health, welfare and enjoyment, but also provide unique settings and learning opportunities for physical skills, inter-personal cooperation and leadership. In addition, in a research university, athletic and sport activities may also provide the practical and experiential backdrop to academic and research programs in human kinetics, health sciences and leisure studies. In the university context, then, the objectives of athletic and sport programs and the academic programs of the School of Physical Education are mutually complementary, with large areas of overlap, though the two sets of objectives are not identical. In terms of the mission of a major Canadian university an excellent set of athletic and sport programs is clearly an asset. The Review Committee has identified the following as areas of concern, and recommends that these be addressed by the UAC and the President's Office:

- 1. With increasing student participation there is a growing demand for additional physical facilities at more convenient hours. The priorities for allocating facility space and time are established by several quasi-independent units (School of Physical Education, Tennis Centre, Aquatic Centre, Winter Sports Centre) and more formal communication between them may be necessary.
- 2. The intramural programs pay for the use of certain university facilities. This is irksome to students since they feel the facilities were largely constructed with their monies.
- 3. The level of participation fees, on top of the other athletic fees, for some sports is very high.

1



- 4. Some people feel that intramural programs are "second class citizens" in terms of access to available resources. Students wanting to participate are sometimes turned away due to non-availability of facilities.
- 5. For a major university, some interest groups have pointed out that it is regrettable that there is a lack of certain types of facilities, for example, a multipurpose field-house, recommended by the space planning study in 1982. The students have suggested that they are not averse to contributing extra monies for these.
- 6. Since intramural programs run more or less independently through AMS, there is some merit in AMS taking full control, provided adequate monies and access to facilities are available.

2.2.2 Recreation-UBC

When the compulsory physical education course requirements were dropped at UBC, it was felt that the university should make provision for a non-credit instructional program in leisure activities. Campus participants pay a fee (approximately 30%-50% of the commercial rates), and the offcampus participants pay close to commercial rates. The program also rents out recreational outdoor equipment throughout the year. Courses offered this year cover the following areas: fitness and strength training, martial arts, racquet sports, dance/aerobics, and several outdoor excursions and activities. Most of the programs run during the winter session. In 1986-87, 53 courses were offered and the course enrolments were approximately 1600, plus a larger number (approximately 2000-3000) of drop-in participants. The total budget for 1986-87 was \$150,000 of which \$60,000 was expected from participation fees. The actual expenditures for the fiscal year 1986-87 were \$121,000, of which \$90,000 was raised from participation fees and other revenues. These recreation programs have to compete with other recreational and athletic programs for facilities and do not always have a high priority.

From the information made available, the Review Committee has identified the following areas of concern and recommends that they be addressed by the UAC and the President's Office:

- 1. Is it possible to combine the drop-in component of Recreation-UBC with similar programs run through AMS/ intramurals? Students are supportive of Rec-UBC.
- 2. Should UBC compete with outside agencies, for example, YMCA/YWCA and community centres and colleges in providing non-credit courses? Is there a unique role for UBC in providing these services?
- 3. Although the rental of sports equipment brings in extra income and reduces the operating costs, should UBC be in this business, and are the rental rates realistic and competitive?
- 4. Are there opportunities for cost savings by combining the management of Rec-UBC and Community Sports?

2.2.3 Community Sports

UBC has operated a community sports program for children (6 to 17 years old) for over 24 years. The program offers a wide variety of instructional programs during the summer months. Sports currently offered are ice hockey, soccer, basketball, volleyball, golf, fencing, badminton, an all-round sports camp, and a computer/sports camp. Approximately 5000 children from all over B.C., and some from overseas, participate. In addition, approximately 1000 children register in off-campus summer camps. The participation fees are set at approximately the market level. The 1986-87 budget for Community Sports was \$335,000, and the actual expenditures are estimated to be \$349,500 with a revenue of \$325,000. The intention is to recover all direct costs. The pricing does not fully take into account the indirect costs. The program is very popular and attracts a large number of young people to the campus, and results in excellent publicity for UBC. Most of the part-time coaches are from UBC.

However, the following issues and concerns were voiced during the current review, and it is recommended that the UAC and the President's Office examine these concerns:

- 1. Should UBC be competing with outside organizations offering similar services? Are the indirect and infrastructure costs included in pricing the courses and services?

2.2.4 Intercollegiate Athletics

Historically, at UBC, intercollegiate athletics have been organized through the MAC and WAC.

In 1986-87 UBC fielded 16 women's sports teams with 8 entering C.W.U.A.A. conference. For men's athletics 18 teams were fielded with 9 of these entering C.W.U.A.A. conference. The annual budget for 1986-87 for men's athletics was set at \$611,700, and the estimated actual expenditures are \$627,000. The budget for women's athletics was \$295,000 and the estimated actual expenditure was \$284,500.

Intercollegiate athletics are the most visible and contro versial part of our athletic activity. The Review Committee has identified several issues and concerns relating to intercollegiate athletics, and recommends that UAC and the President's Office examine these as soon as possible.

- 1. These programs consume a major part of our budgets. While many students, faculty and staff would support such programs, there are serious concerns about the associated costs, including those for full-time coaches.
- 2. There are established procedures and criteria in the MAC for discontinuing men's programs. There has been no general discussion and acceptance of these criteria for women's programs. In any case, how many excellent C.I.A.U. teams should UBC field? Just the minimum required for C.I.A.U. participation?
- 3. Although historically the Men's Athletic Committee and the Women's Athletic Committee have operated more or less independently, is it necessary to have separate Directors for Men's and Women's athletics? Perhaps there could be substantial savings, as well as sharing of common concerns of male and female athletes, if the management structure was rationalized?
- 4. Participation in C.I.A.U. programs adds substantial travel costs for UBC teams. The federal government subsidy for travel costs has been steadily decreasing. Moreover, the team travel costs are likely to be unpredictable from year to year, thus it is essential to establish and maintain a contingency fund.
- 5. If UBC should decide to continue participation in competitive intercollegiate athletics, what is an adequate level of participation, and how can UBC maintain the necessary funding for the above level?
- 6. Should UBC establish scholarship and bursary funds for students who meet the university's academic standard and are also proficient in some competitive athletic or sports program?
- 7. Why are the men and women athletes not equally treated?
- 8. Why is the funding available for men's and women's intercollegiate teams not equitable? What are the factors limiting the participation of women athletes in intercollegiate teams?
- 9. Is the differential treatment of university team athletes with respect to facilities and fee waivers justified?

Appendix 4 lists the athletic and sport programs currently offered at UBC.

2.3 Facilities

UBC athletic and sport facilities are not associated with any single administrative unit on campus. The administrative units most directly involved with the management and operation of the facilities are: School of Physical Education, Department of Athletics, Physical Plant and AMS. The facilities discussed below are:

> War Memorial Gymnasium **Osborne** Centre Aquatic Centre Playing Fields and Tennis Courts **Thunderbird Winter Sports Centre** Thunderbird Stadium

The two buildings used by the Department of Sports Medicine, Rugby Pavilion and John Owen Pavilion, are not discussed in this report.

2.3.1 War Memorial Gymnasium

Even after the recent renovations the staff and students work under poor conditions, and there is no doubt that the overall quality of the space leads to inefficiencies and conflicts for faculty, staff, students and other users.

The Department of Athletics pays an annual sum of approximately \$47,000 to the School of Physical Education as their share for the athletic facilities management.

2.3.2 Osborne Centre

The 1968 master plans for campus development recommended the relocation of the School of Physical Education to a new site near the Winter Sports Arena and the playing fields. The original gymnasium constructed in 1929 was demolished. The construction of the Osborne Centre took place in two stages: Phase I was completed in 1970 with two gymnasia, locker rooms, offices and classrooms. Phase II was the replacement of the old gymnasium by two gymnasia, one of which is exclusively used for gymnastics and the other is multi-purpose.

The general quality of the space is not very high. The gymnasia floors are unsuitable for repetitive activity and the quality of the lockers is poor. The faculty offices are open plan and have never been properly finished. The two classrooms have no direct daylight.

The School of Physical Education is the primary user of the Osborne Centre.

2.3.3 Aquatic Centre

The indoor swimming facilities were completed in 1979, and comprise a 50 metre pool, diving area, steam rooms, saunas, an exercise room, a whirlpool bath and a spectator balcony seating 500 people.

The Centre also manages the outdoor Empire Pool, constructed for the British Empire Games in 1954. There is an outdoor spectator gallery overlooking the Pool.

Due to shortage of suitable space in the War Memorial Gymnasium and the Osborne Centre, the School of Physical Education presently has space in the Aquatic Centre for the Buchanan Fitness Laboratory and two offices.

The Centre is administered by a Management Committee comprising members nominated by the university and AMS. The management agreement between the university and AMS does not have a stipulated term. The Centre is in heavy use throughout the year.

2.3.4 Playing Fields and Tennis Courts

The playing fields located in Thunderbird Park include four soccer, four field bockey, and four rugby fields, as well as one cricket, one football practise and one stadium game field.

The university is fortunate to have a large number of outdoor fields, and these are in heavy use for competitive intercollegiate sports. Almost all of these fields are restricted to intercollegiate sports use only. The Intramural/Recreational sport programs use a field near the Osborne Centre and another (McInnes field) near the War Memorial Gymnasium. Both these fields are in poor condition due to overuse and limited ground maintenance. There is, therefore, a pressing need for an all-weather lighted field near the War Memorial Gymnasium for Intramural and Recreational programs. Moreover, the recent increase in the number of units available for student housing has also created additional demands for playing fields. Currently, the resident students are confined mostly to the use of "boulevard areas" around the residences. Addition of lighted artificial playing surfaces at both the Thunderbird Park as well as the War Memorial Gymnasium areas would go a long way towards alleviating the high demand for adequate playing fields.

The UBC Tennis Centre was established in 1980 and used to operate a financially viable and a very successful recreational and competitive program for the university community as well as for the public. In 1983 the university entered into a ten year agreement with Tennis Canada to establish the Western Canadian Tennis Training Centre. In 1986 it was decided to combine the operation of the Tennis Centre and the Training Centre for better management and financial viability. Currently, the Centre operates all tennis facilities on the campus (8 indoor courts, 4 grass courts, 10 outdoor courts). The Centre now operates as an ancillary, and for the past few years has been operating at a small loss, mainly due to the cost of servicing the debt incurred for the tennis bubble and grass courts.

- 2. Is it possible to combine the management of Community Sports with some other athletic program, for example, **Rec-UBC?**
- 3. The impact and benefit of these programs on community relations and service should be assessed.
- 4. What are the statistics of the temporary summer employment created for UBC students, in person-months?
- 5. What fraction of the summer salaries are paid to full-time coaches employed by UBC?
- 6. Should the Thunderbird Sports Centre be operated during summers?

The building was constructed in 1951 to house 5 faculty members, 400 lockers, dressing rooms and other ancillary space needed for the School of Physical Education and athletic and sport programs. In 1970 the bowling alley was converted into laboratories and office space for the School, and a physiotreatment centre was added within the available space. Although the number of lockers has increased in recent years, this space is still far from satisfactory. Graduate student offices and the circuit occupy space below the spectator seating. Much of this space is considered hazardous by the Fire Marshal. The shower facilities have never really been updated. During the 1986-87 fiscal year a renovation program was funded through the provincial public works grants at a cost of approximately \$250,000. The main floor was restored in 1979.

Currently, the gymnasium has office space for several faculty, staff and graduate students for the School and the Department of Athletics. The building is also used for convocations, conventions and other special events, in addition to the academic, athletic and sport activities.

The Review Committee received several written comments from students and faculty strongly protesting the level of user fees and limited accessibility of tennis facilities on the campus.

2.3.5 Thunderbird Winter Sports Centre

The Thunderbird Winter Sports Centre consists of a hockey rink, with seating for 1,284 spectators, a curling area with six sheets of ice, a lounge and a snack bar. The building was opened in 1965 and additional facilities (squash courts, handball courts and dressing rooms, etc.) were subsequently added. The complex is administered by a Management Committee, comprising members nominated by the university and AMS. The current leasing agreement between the AMS and the university expires in November 1987.

The building and equipment are in urgent need of essential repairs and upgrading, and plans have been prepared to undertake this work during 1987-88.

2



2.3.6 Thunderbird Stadium

The stadium has been in use since 1967, and has a covered seating capacity of 3200. It has offices, dressing, service and training rooms, a press box and social room. The stadium is floodlit and is in heavy use throughout the school year for football, rugby and soccer. It is also used as a work area by the athletic support staff for laundry, equipment and repairs, etc. The stadium structure is in good condition.

2.3.7 Facilities Management and Planning

As noted above the various sport and athletic facilities are managed by either the School of Physical Education, or the separate and independent management committees for the Aquatic Centre, the Thunderbird Winter Sports Centre and the Tennis Centre. The management of facilities is fragmented and there is very little formal coordination between the various "agencies" operating and managing the facilities. Long-term planning is ad hoc—the only recent planning study to develop a coordinated long-term plan for athletic and recreational space was undertaken in 1981-82 by a Presidential Ad Hoc Committee under the chairmanship of Dr. C.V. Finnegan.

Except for the Tennis Centre, the cost of operation and maintenance is borne by the university. The above management agencies set their own user fee schedules. The time table for facilities usage is usually established after informal consultation between the Director of Athletic and Sport Services, the Director of the School of Physical Education and Recreation, and the management committees of the three centres. The current costs of operation and maintenance are:

a) Aquatic Centre	\$411.000
b) Winter Sports Centre	483.000
c) War Memorial Gymnasium	197.000
d) Osborne Centre	85,000
e) Armouries (tennis courts, etc.)	68,000
f) Thunderbird Stadium	50,000
g) Playing Fields	63,000
h) Tennis Bubble and Grass Courts	43,000*
(*paid by the Tennis Centre)	

The total annual cost to the university for operating the sport and athletic facilities is approximately \$1.36 million.

2.4 Management and Finances

2.4.1 Background

5

Before 1950, the intercollegiate and intramural programs were organized and administered by the Alma Mater Society.

During the 1950-51 session a student committee recommended the formation of a Men's Athletic Committee. The student committee felt that there was a need to relieve the student executives of the burden of administrative responsibility for athletic programs, and to provide continuity, stability and efficiency of operation. It was also considered desirable for the university to assume primary financial and management responsibility. The formation of MAC was approved by the Board of Governors and the cost of running the athletic and sport programs was shared by the university and AMS. The Director of Athletics was appointed by the Board. The budget for athletics was administered through the School of Physical Education, and the Director of the School was ex-officio Chairman of the MAC.

In 1952, a Senate committee, chaired by Dean Walter Gage, recommended that the MAC become a President's Committee, with a Chairman appointed by the President. The duties and responsibilities of the MAC and the Director of Athletics were more clearly defined at this time. A similar organization was suggested for the Women's Athletic Committee (WAC). Since 1954 the MAC has functioned as a President's Committee. A similar status was recommended for WAC by a Senate committee, and approved by the Board in 1958.

In 1958, a Senate committee on Recreation, Athletic and Physical Education, chaired by Dean A.W. Mathews, noted that the various reports prepared by MAC, alumni and students had a common recommendation concerning increased financial assistance from the university for the athletic and sport programs. The Mathews Committee recommended that the university assume full responsibility for:

- a) all salaries and honoraria,
- b) the expenses of the operation of the Athletic Director's office,
- c) the repairs and maintenance of fields, buildings and non-expendable equipment.

or the administration and management of intramural and

Early in 1985 the university conducted a study of the budgets for athletics at several major Canadian universities (Alberta, Toronto, Waterloo, Western and York). The results of this study were made available to the Board of Governors in March 1985. It was noted that:

- 1. Student athletic fees were, in all cases, established by the university and were not subject to student referendum.
- 2. Fees varied from approximately \$30 to \$70.
- 3. The university general purpose operating budget provision for athletics was in the range of 40-50% of the total athletic budget. At UBC, in 1984/85, the university contribution (\$688,000) was approximately 65% of the athletic budget.
- 4. Since 1979-80, the operating budget for Men's and Women's athletic programs had dropped to 66.8% of the 1979-80 level, in constant dollars.

The above study made the following recommendations for UBC:

- 1. A student activity fee of \$32 per full-time student be established, and the university contribution be maintained at approximately 35% of the athletic budget for the intercollegiate and intramural programs.
- 2. Two reserve funds be established; one for facility improvement and the other for major equipment requirements.

At the March and October 1985 meetings the Board of Governors took the following specific decisions affecting the administration and finances of athletics at the university:

- A student activity fee of \$32 per full-time student was imposed.
- 2. A University Athletic Council was established with responsibility in all matters concerning athletic and sport programs (Appendix 5).
- 3. The Department of Athletic and Sports Services was to be treated as an ancillary enterprise, with a university grant of \$525,900 for 1985-86.

Since 1985-86 there have been no changes in either the athletic fee or the university grant.

2.4.2 Relationship Between Athletics and the School of Physical Education

Athletic and sport programs have been flourishing at UBC since before the Point Grey campus was officially opened in 1925. The School of Physical Education was established in 1946 at the initiative of several university staff, who instructed and supervised in the two year compulsory Physical Education program during the Second World War. Since its inception the School has played a leading and active role in the athletic and sport programs at UBC. Currently a majority of the coaches and professional staff are on tenure-track appointments in the School (14 out of 23). However, since 1979 only one coach has been hired on a tenure-track appointment. In addition to the sharing of staff, the two units (the School and the Department of Athletics) share common facilities and equipment.

Ever since a formal relationship between the School and the Department of Athletics was established in the early 1950s, there have been continuing discussions about the shared costs of personnel, facilities and equipment. For example, in 1958 Dean A.M. Mathews, in his report to President MacKenzie, noted that "as the resources of the School are increased it would be good policy to increase the amount of coaching service rendered to athletics by new appointments and/or to increase the proportion of the instructor's time available for coaching . . . the possibility of coaching service from staff in other departments, and from experienced students, might be more fully exploited as a second desirable alternative". The above report, when discussing a student's proposal of balanced sharing of costs between the AMS and the university, also observed, "If it is considered to be necessary and desirable, the MAC and WAC budgets could be set up to show the proportion of the salary of each member of the staff of the School of Physical Education who coaches a sport that is a proper charge against athletics (this practice is now followed by the University of Western Ontario).

Since the early 1950s the budget for athletics has been

2.4.3 Relationship with Alumni

At UBC the alumni and the community at large have always actively participated in the athletic and sport programs. Alumni are represented on the various volunteer committees for the development of programs (UAC, MAC and WAC), and for the management of facilities (Aquatic Centre and the Winter Sports Centre). In addition, the alumni have formed special support groups (for example, Thunderbird Society, Friends of Rowing, etc.) which provide financial assistance to the programs, usually through the Alumni Association. During the 1986-87 fiscal year such voluntary donations amounted to over \$200,000.

2.4.4 Present Status

The Review Committee noted that at present several management and advisory structures exist. The day-to-day management is provided by the Director of Athletics with five program directors (Men's Athletics, Women's Athletics, Rec-UBC, Community Sports and Intramurals) assisting him. In parallel with the above management structure, there are three President's Committees (UAC, MAC and WAC) and several informal user/participant groups. At the time of establishment of UAC its formal relationship with the two long-standing committees (MAC and WAC) and the School of Physical Education was not clearly defined. Moreover, there has been some confusion regarding the role of UAC in the management of the athletic and sport programs at UBC.

The university grant to the Department of Athletic and Sport Services has remained at \$525,900 per year, the level established in 1985. The Department had to absorb all salary and inflationary increases. During 1986-87 an additional one-time grant of \$98,000 was provided by the university to cover the cost of benefits. Moreover, there have been no increases in athletic fees. The above financial constraints have resulted in higher participation fees and cancellation of some programs.

The proposed 1987-88 budget for the Department of Athletic and Sport Services is shown in Appendix 7.

3. OPTIONS FOR REORGANIZATION

The Review Committee has discussed a variety of possible options for the organization, management and financing of athletic and sport services at UBC. However, before discussing the options listed below, it is important to articulate the broad consensus reached by the Review Committee on a large range of issues and options affecting the athletic and sport programs on campus. The Review Committee is unanimous that any option adopted by the university must embody the following general philosophy, objectives and operational procedures:

- 1. With respect to the educational aspects of the athletic sport programs, the university must recognize that a comprehensive and balanced range of intramural and intercollegiate athletic and sport activities are an integral part of our educational heritage and tradition.
- The university should encourage and facilitate the involvement of students, faculty and staff in our athletic and sport programs as active participants and spectators.
- 3. In the development, operation and management of the athletic and sport programs, the university should seek active involvement of the School of Physical Education, the students, the alumni and the university community at large. Cooperation and liaison between the School of Physical Education and the Department of Athletic and Sport Services should be promoted and actively encouraged by the senior university administration.
- 4. The university must guard against commercialization and carefully monitor to ensure that it is not slowly creeping into our athletic and sport programs.
- 5. The university's school and college liaison practices should be carefully and regularly monitored to ensure that our academic admission and readmission requirements are not being compromised in favour of superior athletic performance of prospective students.
- 6. The total annual budget of the Department of Athletic and Sport Services should be established, after due consultation with the UAC, by the President's Office. The budget should explicitly take into account all revenues. The budget finally approved by the university and the

recreation programs there were no standing Presidential Committees. Until 1972, both these programs were administered through the School of Physical Education. Since that time the intramural programs have been organized and administered through AMS, with partial salary support provided through the Department of Athletic and Sport Services. The administration and management of recreation programs was also turned over to the Department of Athletic and Sport Services in 1972, when the Senate abolished the compulsory physical education course requirement for all students.

In addition to the direct university support, the students have always contributed to the budgets of athletic and sport programs through AMS fees. Currently the students pay a fee of \$7.00 for intercollegiate athletics and \$4.50 for intramural programs. The intercollegiate fee is administered by the Department of Athletic and Sport Services and the intramural fee by the AMS. These fees were established by student referenda. established by the President's Office, but administered as a separate line item through the School of Physical Education. However, the Director of Athletics has always had direct access to the President's Office for the management of the athletics budget and programs. This reporting procedure was formalized in 1980 at the time of appointment of the present Director. The terms of reference of the Director of Athletics, as understood by the retiring Director in 1980, are included as Appendix 6.

On several occasions in the last 15 years suggestions have been made to fully integrate the administration and management of the athletic and sport programs into the School of Physical Education, with the Director of the School in overall charge. A large majority of those Canadian universities which have a School of Physical Education operate in this manner, and there are considerable academic and operational advantages (see sections 3 and 4 below for a detailed discussion of the various options for UBC). This suggestion was discussed in 1980, at the time of appointment of the present Director of Athletics, but was not adopted. actual expenditures for the preceding year should be in the public domain. Procedural and budgetary integrity is of utmost importance, and must be beyond reproach.

- 7. In future no full-time coaches should be hired on tenure-track faculty appointments. This does not affect the status of current tenure-track faculty-coaches.
- 8. Men and women athletes should be treated equally in all respects.
- 9. The distribution of resources between men's athletics, women's athletics and intramural programs should be equitable.
- 10. Community sport programs should be on full cost recovery, and not in competition with outside organizations.

3

- 11. The operation and mandate of the various athletic and sport committees should be rationalized and streamlined, with UAC as the primary advisory body on all matters affecting the athletic and sport services at UBC. UAC should elect its chairperson from amongst the alumni members.
- 12. The university should work towards evolving a unified and coordinated management structure for athletic and sport facilities.
- 13. The current arrangement of separate athletic fees should be retained. Any future increase in the student activity fee of \$32.00 should closely correspond to changes in the overall university fees, and should be accompanied by appropriate increases in the direct university grant to the Department of Athletic and Sport Services.
- 14. Any other students' contributions through fees for facility improvements or special programs should be for a limited number of years only.
- 15. In common with other academic and service departments on campus, the Department of Athletic and Sport Services should be reviewed at regular intervals; the frequency of review should be at least once every five vears.
- 16. UAC should approve all external fund raising projects before forwarding these to the President's Office.

The Review Committee has closely evaluated two possible options for the future direction of athletic and sport programs on campus. These are discussed below.

OPTION ONE-Rationalization and 3.1 Streamlining of Present Structure

In the opinion of the Review Committee almost all of the changes implied in the objectives noted above can be implemented now without any major changes in the management structure or mandate of the Department of Athletic and Sport Services. Perhaps the only exception would be the development of a unified facilities management (paragraph 12 above). Specific recommendations for improving the current management are noted below.

A suggestion to establish an overall coordinating body for athletic and sport services was contained in the 1972 Report of the Subcommittee on Intramural. Extramural and Recreational Activities (Chairman: Mr. Byron Hender). The present UAC was established in 1985, when the student activity fee for \$32.00 was introduced. The Review Committee, under Option One, would propose the following description for a modified UAC.

3.1.1 University Athletic Council

Terms of Reference

The Council will advise the Office of the President on all matters concerning university athletic and sport programs, including the development of general policies, the coordination of specific policies amongst its committee and the development of an annual budget.

Membership

The membership, to be approved by the Board of Governors on the recommendation of the President, shall be:

- 5 Students nominated by AMS
- 5 Faculty and Staff, including ex-officio
- Director, School of Physical Education, Director, Department of Athletic and Sport Services
- 4 Alumni (2 nominated by AMS and 2 by the Office of the President in consultation with the Alumni Association)

Vice President, Student and Academic Services will be a non-voting ex-officio member of the Council. The Council will elect its own chairperson from amongst the alumni membcrs.

The term of appointment shall be two years and may be renewed for two additional two-year terms, except for ex-officio members.

Committees

The Council at its discretion may establish standing or ad hoc committees to oversee and advise on any specific aspect of the operation of athletic and sport programs at UBC. Such

Sport Services, Chairman of UAC and President of AMS. This committee should have regular monthly meetings during the Winter Session, and submit reports to UAC on all matters affecting the athletic and sport programs at UBC.

As noted in Section 2.3 the current management of facilities is under several different jurisdictions. Regardless of the management structure adopted for athletics, it is important for the university and the AMS to work towards developing a unified facilities management plan. Any future management and long-term planning for athletic facilities should address the following needs:

- 1. The laboratory requirements of the School of Physical Education.
- 2. Needs of intramural and intercollegiate athletics.
- 3. Accountability and fiscal planning, including accumulation of reserve funds for updating, improving and developing new facilities. The facilities rental charges paid by the students for athletic and sport programs should be kept small, and coordinated with the total athletic fees paid by the students.

3.2 OPTION TWO-Full Integration with the School of **Physical Education**

The Review Committee noted a number of alternative, legitimate models of University Athletics which are effective in accomplishing their underlying goals. At one extreme of the continuum, athletics is strictly a business venture driven by powerful alumni and commercial concerns with subsidized athletes and highly paid coaches and spectacular facilities. Educational goals are undermined in pursuit of the dollar. Though big business athletics has indubitably helped higher education to survive in many major U.S. universities, the notion of functional rationalism has ruined the concept of amateur sport for generations of students.

At the other extreme of the continuum, a broad range of sports and recreation for all is offered with limited or no involvement in intercollegiate athletics. In the middle of the range one may place the lvy League model which claims to have resisted the temptation to sacrifice educational standards for top-level athletics. This system offers a spectrum of sporting opportunities for students and is dependent upon funding by alumni. Non-academic coaches are hired by an Athletic Director who reports to the Office of the President. Without top level athletes and teams, however, this dependence can weaken leverage upon outside funding and athletic opportunities often diminish in hard economic times.

Characteristics of all the models can be found at UBC, in addition to one unique characteristic-the fact that students themselves contribute a substantial portion of the athletic budget. Because of this last fact, students naturally demand control of the system in proportion to their contributions. Alumni too expect a voice in determining the direction of the athletic program though alumni funding is quite low at UBC in comparison to most athletic/ business ventures. Furthermore, the University has contributed about one third of the Athletics budget in addition to indirect contributions through facility maintenance and administrative salaries. A number of full-time professional coaches have been hired with elite athlete recruitment as part of their task. Men's and women's athletics are now directed by non-faculty as are the Directors of Recreation-UBC and Community Sports. Although there is a long tradition at UBC of fostering a broad range of sports activity through intercollegiate and intramural programs, commercialism is becoming evident, stimulated by the spiralling cost of elite sports. Without the promise of a substantially increased flow of funds from alumni, it seems unlikely for the moment that Athletics at UBC could become the self-sustaining venture of major American research universities and be able to afford first rate intercollegiate endeavors.

The model which predominates in Canada is one of integrated departments of physical education and athletics, often organized as autonomous Faculties of Physical Education and with a focus upon the utilization of athletics for educational goals. Twenty-five Canadian universities have amalgamated departments of physical education and athletics which subscribe to the stated ideals of the C.I.A.U. i.e., to encourage, reflect, and interpret to the Canadian public the highest possible standard of excellence in sport in an educational context.

President, Student and Academic Services would be exofficio, non-voting members of the Advisory Committee. The Director of the School of Physical Education would report to the Vice President, Student and Academic Services on matters related to athletics and to the Dean of Education on the academic affairs of physical education. An integrated model would facilitate a rationalized sharing of common facilities and equipment and the University administration would be urged to work towards a unified facilities management.

4. CONCLUSIONS AND RECOMMENDATIONS

The Review Committee, over the past four months, has examined the past and present operation of athletic and sport programs at UBC. The overall quality of the program is good with numerous achievements to its credit. Over the past several years the program, including participants, athletes, coaches and administrators, has been adjusting slowly to financial restraint and the changing management style at UBC. The current review process has encouraged frank exchanges of views and opinions, often strongly and sincerely held, amongst all interested groups. Numerous written submissions have been received, including those from the Department of Athletic and Sport Services and the School of Physical Education. The Review Committee has also considered previous task force and review committee reports prepared by the university community over the past thirty vears.

There is unanimous agreement amongst the Review Committee members, and a large measure of support in the university community, on the appropriate athletic mission and operational objectives for the university's athletic and sport programs.

The Review Committee has discussed at length the appropriate and effective implementation strategies for UBC. The discussion and argument has focussed on two alternatives: Option One and Option Two. It is satisfying to note that the two alternatives have very large areas of overlap with respect to student/alumni participation in advisory and management roles, fiscal management integrity and unified management and coordinated development of athletic facilities. However, there are certain essential differences in the two implementation strategies-the differences relate to preserving and safeguarding the planning, budgetary and operational autonomy of the athletic and sport programs, particularly in relation to the academic and research programs in the School of Physical Education. This controversy is not new or unique to UBC.

The Review Committee, after considerable discussion and deliberation, favours Option One. The rationale for adopting Option One is described below:

- 1. Since the early 1950's the Director of Athletics has reported directly to the Office of the President. On several occasions in the past 15 years proposals to integrate athletics into the School of Physical education have been made and discussed but not adopted by the university.
- 2. The administrative structure proposed in Option One should provide for strong educational input from the Director of the School of Physical Education in the management, operation and planning of athletic and sport programs at UBC, in an attempt to meet the essential educational intent of Option Two.
- 3. Cooperation between departments sometimes works best when the units are autonomous, and cooperation is perceived as mutually enhancing and beneficial.
- 4. In many instances an educational function is, by conscious policy, not housed in its "disciplinary" home, particularly when the function serves a campus wide community and has a distinct mandate, for example, child care, computing, counselling, health care and library.
- 5. At UBC there is a long tradition of student, alumni and community involvement in athletic development. Direct management and budgetary control through the Office of the President may well be critical at this stage.
- 6. Option One can be implemented gradually and without major disruptions.

RECOMMENDATIONS

committees in each case must have at least two members who are also members of the Council. Active participation of student athletes in the committees of the Council should be encouraged.

Membership on Facilities Management Committees

AMS and the Office of the President should ensure that at least two members of the Council are nominated for membership on the management committees of the Aquatic Centre and the Thunderbird Winter Sports Centre, until such time as an integrated facilities management structure is established.

3.1.2 Management

4

The Department of Athletic and Sport Services, through its Director, shall report to the Vice President, Student and Academic Services.

To facilitate cooperation, coordination and advisory functions an Athletic Operations Committee should be established under the chairmanship of the Vice President, Student and Academic Services. The membership should include Director of the School of Physical Education, Director of Athletic and

In addition to providing a disciplinary home for athletics, an integrated model provides the advantages of larger and more unified staff, shared use and maintenance of sports facilities, avoidance of duplication of effort and expenditure and better use and control of facilities. Separation, or compartmentalization, can cause breakdown of communication and cooperation in addition to endangering the educational context of the athletic enterprise.

Option Two, therefore, suggests that an integrated model is most appropriate for UBC. In this model, the Director of the School of Physical Education is placed in overall charge of Athletic and Physical Education but with absolutely clear and carefully spelled out formal procedures for all financial and policy matters connected with Athletics. An Associate Director of Athletics would assist the Director of the School to follow the set policies and carry out the advice of the University Athletic Committee. The University Athletic Committee would function in a manner similar to that suggested in Option One. An executive management committee would be selected from the Advisory Committee consisting of the Chairman and four other members, at least two of whom would be students. The Director of the School of Physical Education, the Associate Director of Athletics and the Vice

The Review Committee recommends that:

- 1. The university adopt the philosophy and operational objectives enunciated in Section 3 of this report, and charge the Vice President, Student and Academic Services with the responsibility of implementation.
- 2. The university implement Option One (Section 3.1) during the winter session 1987-88.
- 3. The university establish a joint AMS-University Working Group by September 1, 1987 to explore the full implications of a unified facilities management, and report on possible implementation strategies by December 31, 1987. The membership of the Working Group should not exceed five members including the Chairman.
- 4. The university instruct the UAC to address the various concerns about the management and operation of the athletic and sport programs noted in Section 2.2
- 5. The role of student athletes and sports participants in planning and developing the programs be strengthened. (Appendices referred to in this report may be obtained from the office of Vice-President of Student and Academic Services, Dr. K.D. Srivastava.)

Engineering students use co-op program

by Jo Moss

Some of UBC's best engineering students are skipping classes to get the jump on the job market.

Eleven mechanical engineering students in a brand-new specialization, computer-aided automation, will take time out from classes this year with the full sanction of their department.

Instead of sitting in a classroom they'll be learning on the job--working for a company through UBC's co-operative education program.

This is the first time the co-op program has been made a mandatory part of a UBC curriculum," said program coordinator Gordon Staples. "The whole idea is to give students an opportunity to apply their skills--and the companies involved really utilize them.'

The 20 months of work experience gained in five month stints stretches four-year engineering program to five years. Most students figure the trade off will give them an edge over other job applicants.

Today's mechanical engineer needs microprocessor and software experience as well as traditional mechanical engineering knowledge.

"As Canadian industry has become more high-tech there's been a push to automate. The university could see a demand for graduates with a specialty in computer aided automation and robotics," Staples said. The automobile industry uses 90 per cent

of robotics in Canada, but university research

accounts for the remaining ten per cent. Canada is probably best known for the Canada space arm, and for developing small submersible devices--mini-submarines with robotic arms that can be manipulated underwater.

"The only way for Canada to remain competitive on the world market is by cutting costs through automation," Staples said.

The Department of Electrical Engineering is considering starting a mandatory co-op program for some of its students next year.

'Having access to the co-op program boosts enrollment in a particular school, students see an opportunity to get a really good summer job." Staples said.

"Students who have taken part in the coop program rave about their work experience and employers are ecstatic about the program," Staples said. "From the university's point of view it's good interaction with industry.

The UBC co-op program will place about 150 students from Computer Science, Agricultural Sciences, Physics and Engineering this year into career-related jobs all over the country

More than 106 firms and businesses representing both the public and private sector took on UBC co-op program students last year. "Companies often want students back," Staples said. "Many of them see the placement as a four-month interview or screening process, and many of them hire coop program grads.

Magnetrometer sells well

by Debora Sweeney

A UBC scientist has developed a device which soon will become a standard instrument in observatories around the world.

The device, called a fluxgate magnetrometer, measures changes in the earth's magnetic field.

Its developer, Dr. Barry Narod, said his invention is faster and more precise than its predecessors. Narod said he has had so many requests for his fluxgate magnetrometer, he is looking for a major organization to join forces with him to handle the international marketing.

"I've got contracts now from a lot of

<u>People</u> **UBC** scientist given grant

The Medical Research Council of Canada has awarded Dr. Julia Levy its first Industrial Professorship which provides \$750,000 over three years

Levy, a professor at UBC and the vicepresident of research and development at Quadra Logic Technologies Inc., was chosen from several academics who are working to transfer technology to the industrial sector.

Dr. Levy is working in conjunction with scientists from UBC to complete the clinical application research for immunosuppressor factors able to fine tune the body's immune system.

The research includes human trials and the studies necessary for approval by regulatory agencies.

The Canadian Institute of Forestry has recognized forest sciences professor Hamish Kimmins for his work developing a new method of predicting forest yield.

Foresters currently predict future tree growth by looking at what has happened in the past. Kimmins uses criteria such as changing soil, light, or climatic conditions, to obtain a more realistic, and precise prediction for tree stands. The CiF award is presented annually to a single individual in recognition of a specific contribution to forest science.

Three UBC oceanographers have collaborated with their counterparts in China to share the results of their marine research.

* *

Drs. Tim Parsons and Paul J. Harrison have spent the last five years working with Chinese scientists, studying the effects of pollution on the marine ecosystem. Their experiments focussed on the substances oil, heavy metals and dredge, and the changes they have caused in marine plankton.

* * *

Dr. Raymond Andersen's research involves the search for chemicals in marine animals which have pharmaceutical properties. Dr. Andersen was recently in Qingdao, China to take part in an academic exchange.

* * *

Prof. Wallace Berry of UBC's School of Music has received an award from the American Society of Composers, Authors and different countries," he said. "It's becoming very big, very fast.'

One of the fluxgate magnetrometer's functions is to measure the rapid changes caused by solar flares and other solar phenomena

"In the past, these have knocked out power transmission lines, communications and radar systems," said Narod. "If you work in communications, you want that information as quickly as possible."

The fluxgate magnetrometer is made up of three components -- a sensing device which can be held easily in one hand, a computer card and a long cable which runs from the sensor to the computer. It has been adopted as a standard instrument by the U.S. Geological Survey, the Canadian Geological Survey and the National Research Council. As well, Narod said he is sending his first magnetrometer to Europe next month

The device sells for \$6,000 to \$9,000 U.S. That is a good deal, according to an official from the National Oceanic and Atmospheric Centre in Boulder, Colorado. The official also said Narod's magnetrometer is much more compact than others.

As well as measuring solar phenomena, the magnetrometer is used around the world commercially to make compass charts for navigation.

Narod said his fluxgate magnetrometer will be launched into space in October, as part of the National Research Council's space physics program. The object of the sub-orbit launch, the first in a series of launches, will be to study the magnetic field of the upper atmosphere.

Registration stays same

Total registration at UBC for the 1987-88 winter session will be about the same as last year, according to Acting Registrar Alan McMillan.

"Our total as of Sept. 15 is 24,096, down four or five hundred from last year," he said. "But the number of applications still being processed is quite high, so we expect this will bring the figure closer to last year's total of 24.868.

For several years UBC has had enrolment limits in almost every academic program. President David Strangway said the limits

are essential if quality education is to be maintained at the university.

"The simple fact of the matter is that with a certain level of funding you can provide quality education only to a certain number of students," he said

"We can't cope with more numbers and haven't been able to for a long time," he said. Information released recently by the Canadian Higher Education Research Network shows that Canada has the highest participation rate in post-secondary education anywhere in the world.

The report said that this year almost every second 18-21 year old in Canada is studying full-time at a post-secondary institution.



U.S. Expert at UBC for spinal cord talk

People with spinal cord injuries are losing their senses of identity because they can't go out and find work, according to an internationally renowned occupational therapist

Dr. Elizabeth Yerxa is coming to UBC Oct. 1 and 2, to share her findings on how people with spinal cord injuries use their time, compared with able-bodied people. The findings indicate the disabled group yearns to get out into the work force.

Yerxa, a professor at the University of Southern California, said her findings are surprising and often disturbing

"What is most disturbing is that a majority of the sample group -- males in their late 30's, in the prime of their lives, are unemployed,' said Yerxa.

Fifteen people, all men with spinal cord injuries and their able-bodied friends participated in the research. They were asked to keep track of everything they did, 24 hours a day, eight days a week. Then, they classified what they did by categories: work, play, rest and self-maintenance. Yerxa said this is the first time this type of research has been conducted.

The findings show 10 of the 15 disabled people who participated are unemployed. Of

Alumni gifts surpass goal

those who are employed, three work in programs for disabled people. All but one of the able-bodied participants are employed the one who doesn't work is retired.

"All of the disabled participants had a good degree of education," said Yerxa. "All of them had post-secondary education -- at least two years in college.'

Yerxa said her research indicates social barriers -- not laziness or disinterest prevent people with spinal cord injuries from getting work. She said vocational goals topped their lists of objectives.

Dr. Yerxa will be speaking about her findings on Thursday, Oct. 1 at the Instructional Resources Centre, Lecture Hall #1, at 12:30 pm. The lecture is free.



UBC alumni reached into their pockets to give more than \$1.5 million to the university this year, up 33 per cent over last year's donations.

The Alumni Association's annual alumni fund campaign exceeded their goal of \$1.5 million by 5.6 percent.

UBC President David Strangway said he was pleased to see a growing commitment from alumni.

"It shows our grads are interested in supporting the university's excellence by investing in the students and alumni of the future," Strangway said. "It's part of a longstanding tradition of alumni involvement at UBC.'

Donations provide funding for faculty projects, assistance for teaching and research, and financial aid for students--whatever are the areas of greatest need. More than half the dollars raised in the campaign were gifts of \$1,000 and over for a grand total of \$1,584,861.

The 1987/88 alumni fund campaign, scheduled for kickoff in October, is targeted to raise \$2 million.



Schmidt

Dr. Elizabeth Yerxa

Farm Cottages Up in Smoke

A group of old UBC farm cottages will be going up in smoke over the next few weeks.

The five cottages, located on Naramata Court east of Wesbrook Mall, will be used in fire training exercises by the University Endowment Lands Fire Department. The cottages were originally used to house live-in staff who tended the animal science department's livestock.

Proposed dates for the fires are Sept. 24, 28, 30 and Oct. 3. The exercises begin at 9 a.m.

Publishers in recognition of his contributions to musical composition. Berry was selected for the award by a panel of distinguished musicians from across the United States.

UBC Calendar from P. 4

Museum of Anthropology

Jane Ash Poitras: Sweatlodge Etchings (exhibit). A contemporary Cree artist from Edmonton expresses visions and supernatural images encountered in her sweatlodge experience. Until October 18

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

The Hindu Divine. Six independent exhibitions explore some of the many ways in which abstract concepts of the Absolute are depicted in Indian life through bronzes, stone sculptures, popular art and everyday objects. A seventh exhibition discusses Hindu, Sikh, and Islamic religious expressions in Vancouver, Until November.

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

Language Exchange Program This program is for those interested in learning foreign languages or in exchanging a foreign language for English. Call International House between 9 a.m. and 5 p.m. Monday - Friday at 228-5021.

UBC Access

The new issue of the Guided Independent Study calendar supplement 1987/88 is now available. Please call 224-3214 or drop by Room 324, Library Processing Centre.

Badminton Club

Faculty, Staff & Graduate Student Badminton Club meets Tuesdays 8:30 - 10:30 p.m. and Fridays 7:30 -9:30 p.m. in Gym A, Robert Osborne Sports Centre. For more information call Bernie 228–4025 or 731–9966.

UBC Calendar

SUNDAY, SEPT. 27

Japanese Woodblock Printmaking Lecture/Demonstration, Ann Forman, For information, call 228-5254. \$15. Conference Room, Carr Hall, Centre for Continuing Education. 1 p.m.

MONDAY, SEPT. 28

B.C. Cancer Research Centre Seminar Arg-Gly-Asp Family of Extra Cellular Matrix Receptors: Role in cell adhesion, Differentiation and Oncogenesis. Dr. Shoukat Dedhar, B.C. Cancer Research Centre. Lecture Theatre, B.C. Cancer Research Centre, 601 W. 10th Ave. 12 noon.

Political Science Lecture

The Iran-Iraq War and The Superpowers. Prof. Bernard Reich, Political Science, Washington University. Room A100, Buchanan Building. 12:30 p.m.

Science, Technology & Society Lecture

Understanding Strategic Doctrine. Prof. Michael Wallace, Political Science, UBC. Room 218, Hennings Building. 12:30 p.m.

Mechanical Engineering Seminar An Axisymmetric Tolerant Wind Tunnel, Mr. Jason Premnath, Graduate Student, Mechanical Engineering. For information, call 228–2781. Room 1215, Civil & Mechanical Engineering Building, 3:30 p.m.

Biochemical Discussion Group Seminar

A Structural variant of T4 lysozyme produced by a synthetic gene. Dr. David Rose, The Division of Biological Sciences, National Research Council of Canada, Ottawa. Lecture Hall 4, IRC. 3:45 p.m.

Evening English Language Courses Speech: Fluency and Pronunciation – Advanced and

Conversation Skills - Beginner to Advanced. \$165 per course. Mondays and Wednesdays for 8 weeks. For information, call 222–5208. Room 209, 2062 West Mall, Hut M18. 6:30 p.m.

Guitar Lecture/Recital

Segovia. Michael Strutt, Lecturer, School of Music. For information, call 222–5254. \$11. Conference Room, Carr Hall, Centre for Continuing Education. 7:30 p.m.

TUESDAY, SEPT. 29 Botany Seminar

Molecular Approaches to Studying Population Structure, Systematics and Evolution of Ectendomycorrhizal Fungi. Keith Eggar, Laval University, Quebec. Room 2000, Biological Sciences Building. 12:30 p.m.

Health Promotion and Systems Studies

Interdisciplinary Health Studies Exchange Patients' Desires vs. their Expectations for Psycho Social Intervention. Dr. Carol Herbert, Director, Division of Behavioural Medicine, Dept. of Family Practice. Free admission. For information, call 228-2258. Room B75, IRC. 12:30 p.m.

Chemistry Seminar

New Chemistry of Dipolar Intermediates from Reactions of Amines and alpha–Azoenamines with Conjugated Unsaturated Compunds. Prof. John Warkentin, Dept. of Chemistry, McMaster University. Room 250, Chemistry Building, 1 p.m.

Oceanography Seminar The Influence of Buoyancy Flux from Estuaries on Continental Shelf Circulation. A. Weaver, Oceanography. Room 1465, Biological Sciences Building. 3:30 p.m.

Statistics Seminar

On the Existence of a Stationary Bilinear Time Series. Dr. Jian Liu, Dept. of Statistics, UBC. Room 102, Ponderosa Annex C. 3:30 p.m.

Neuroscience Discussion Group

The Functional-anatomical Organization of the Basal Forebrain: New Perspectives. Dr. Lennart Heimer, Otolaryngology, University of Virginia Medical Center. For information, call Dr. S.R. Vincent 228-7038. Lecture Hall 3, IRC. 4 p.m.

The Research Centre Seminar

Factors Controlling Lung Growth. Dr. W.M. Thurlbeck, Professor, Pathology, UBC. Refreshments at 4 p.m. Room 3D16, Children's Hospital, 4480 Oak Street, Vancouver. 4:15 p.m.

ng English Language Courses

Forestry Seminar

Possible Future Collaboration Between the Forest Biotechnology Centre, B.C. Research and the Faculty of Forestry. Dr. Paul Webb, British Columbia Research. Free admission. For more information, call 228–2507. Room 166, MacMillan Building. 12:30 p.m.

IAM - Applied Mathematics Seminar

Regularity Issues in the Calculus of Variations. Dr. Philip D. Loewen, Mathematics, UBC. Room 229, Math Building, 3:45 p.m.

Chemistry Pacific Coast Organic

Lectureship Carbohydrate Radicals – New Intermediates in Organic Chemistry, Prof. Bernd Giese, Dept. of Chemistry, Darmstadt, W. Germany. Room 126, Chemistry Building, 4:30 p.m.

Science for Peace, B.C. Chapter

1987 International Pugwash Meeting in Vienna. Luis Sobrino, Physics, UBC. General Monthly Meeting of Science for Peace. Room 301, Computer Science Building, 7:30 p.m.

THURSDAY, OCT. 1

Committee on Lectures/Philosophy Lecture Darwin's Great Tree of Life: Roots and Ramifications. Prof. Emerita Marjorie Grene, Philosophy, University of California, Davis. Room A102, Buchanan Building. 12:30 p.m.

Rehabilitation Lecture

Temporal Adaptation: Organization and the Use of Time in Daily Life. Dr. Elizabeth Yerxa, Ed.D., OTR, FAOTA, Professor and Chairperson, Dept. of Occupational Therapy, University of Southern California. Lecture Hall 1, IRC. 12:30 p.m.

Committee on Lectures/Philosophy Seminar Animal Mechanism and the Cartesian Vision of Nature. Prof. Emerita Marjorie Grene, Philosophy, University of California, Davis. Penthouse, Buchanan Building. 3:30 p.m.

Physics Colloquium

Rutherford Lecture. The Search for the Ultimate Radioactivity – Proton Decay. Prof. Maurice Goldhaber, Brookhaven Labs. Room 201, Hennings Building. 4 p.m.

Continuing Education Evening Lecture

The Gaia Hypothesis. Andre Sobolewski, PhD Candidate, Dept. of Microbiology, UBC. \$8, students \$5. For information, call 222-5261. Room G41/42,
Woodward Building. 7:30 p.m.

FRIDAY, OCT. 2 **Gerontology** Lecture

What is Happening in Gerontology in 1987 of Interest to Education. Dr. James E. Birren, Dean Emeritus, Andrus Gerontology Center, University of Southern California. For information, call 228–5881. Room #1, Adult Education Research Centre, 5760 Toronto Rd. 10:30 - 12 noon.

Medical Genetics Seminar

Case presentations and counselling issues. Clinical Geneticists, Clinical Genetics Unit, Grace Hospital. Parentcraft Room, Main floor, Grace Hospital, 4490 Oak Street, 1 p.m.

Asian Studies Seminar

The Discovery of Being and the Role of The Sage in Third Century Chinese Philosophy. Prof. Rudolf G. Wagner, Director, Sinological Seminar, University of Heidelberg. Room 604, Asian Centre. 3:30 p.m.

Continuing Education Public Affairs film

Film screening by NFB. This Borrowed Land with Dr. Ursula Franklin, feminist scientist and Bonnie Kreps, nationally known feminist writer/film-maker. Free. For information, call 222-5238. Room 101/102, Law Building, 8 p.m.

SATURDAY, OCT. 3

Continuing Education Seminar Values Shared by Three Movements – Peace, Environmental Protection and Feminism. Dr. Ursula Franklin, feminist scientist. \$30, students and unemployed \$15. For information, call 222–5238. Room 101/102, Law Building.. 9:30 a.m. - 3:30 p.m.

Continuing Education field trip A City's Harbour: Discovering Vancouver's Waterfront.

David Hill–Turner, maritime and industrial historian. \$25. For information, call 222–5237 (fimited to 20). Meet

B.C. Cancer Research Centre Seminar Psychosocial Factors and Survival in Breast Cancer Patients. Dr. Greg Hislop, Epidemiology, Biometry and Occupational Oncology, BCCRC, Dr. Nancy Waxler-Morrison, Dept. of Anthropology and Social Work, UBC. Lecture Theatre, B.C. Cancer Research Centre, 601 W. 10th Ave. 12 noon.

Mechanical Engineering Seminar Axial Rupture in a Submerged Tube. Mr. Kofi Sagoe-Crentsil, Graduate Student, Mechanical Engineering. For information, call 228–2781. Room 1215, Civil &

Mechanical Engineering Building. 3:30 p.m. IAM – Applied Mathematics Seminar

Bifurcations and Symmetry in Taylor-Couette Flow. Dr. Wayne Nagata, Mathematics, UBC. Room 229, Math Building. 3:45 p.m.

Classics & Archaeological Institute of

America/Vancouver Society Lecture Recent discoveries at the Heraion of Samos, Prof. Helmut Kyrieleis, Director, German Archaeological Institute at Athens. For information, call 228–2889. Lecture Theatre, Museum of Anthropology. 8 p.m.

TUESDAY, OCT. 6

Botany Seminar Accumulation of antifungal polyacetylenes in hairy root cultures of Chaenactis douglasii. Peter Constabel, Botany, UBC. Room 2000, Biological Sciences Building. 12:30 p.m.

Faculty Development Seminar New Ideas in Instruction. Dr. Roger Boshier, Faculty of Education, UBC. For information call Ethel Jones 222– 5272. Room 2449, Biological Sciences Building. 12:30

Chemistry Seminar

Badical lons in Photochemistry, Prof. Don Arnold, Chemistry Dept., Dalhousie University, Halifax, Nova Scotia. Refreshments in Room 250 from 12:30 p.m. prior to lecture. Room 250, Chemistry Building. 1 p.m.

Regent College Lecture

Cecil H. & Ida Green Visiting Professor. The Mind of the Evangelical Movement. Sir Owen Chadwick, O.M., Regius Professor Emeritus of Modern History, Cambridge. 5375 University Blvd., University Chapel. 1 p.m

Oceanography Seminar The Transport and Mixing of Water Masses by Eddies. Dr. John Harvey, School of Environment Sciences, University of East Anglia, U.K. For information, call Dr. Steve Calvert at 228–5210. Room 1465, Biological Sciences Building, 3:30 p.m.

WEDNESDAY, OCT. 7

Pharmaceutical Sciences Seminar Biological Significance of Leukotrienes. Dr. Anthony Ford-Hutchison, Merck-Frosst Laboratories, Montreal. Lecture Hall 1, IRC. 12:30 p.m.

Geography Colloquium The Menace of the Three Decker: Housing and Ideology in Worcester, Massachusetts. Stacy Warren, Geography, UBC. Room 201, Geography Building. 3:30 p.m.

Geophysics & Astronomy Seminar

Microgeometry, Fluids, and the Dielectric Response of Sandstones. Dr. Rosemary Knight, Geological Sciences, UBC. Room 260, Geophysics & Astronomy Building. 4 p.m.

Canadian Assoc. for Information Science Seminar

Reality in Data Management Systems. John Campbell, Programmer Analyst, UBC Library. All welcome. Conference Room, Sedgewick Library. 4 p.m.

Faculty Development Seminar

Successful Grant Proposal–Writing In the Humanities & Social Sciences. Dr. R. Spratley, Director, Research Services & Staff, UBC. For information, call Ethel Jones 222–5272. Room 2449, Biological Sciences Building. 4:30 p.m.

Vancouver School of Theology Lecture Cecil H. & Ida Green Visiting Professor. The Development of Theological Education. Sir Owen Chadwick, O.M., Regius Professor Emeritus of Modern History, Cambridge. Epiphany Chapel. 7 p.m.

12th Annual J.F. McCreary Lecture Health Promotion: In Health Practice Settings; the Workplace and Schools. Lester Breslow, M.D., M.P.H., Jonsson Comprehensive Cancer Control, U.C.L.A. Admission free. Lecture Hall 2, IRC. 12:30 p.m.

THE VANCOUVER INSTITUTE



Saturday, Oct. 10 The Role of Religion in History. Sir Owen Chadwick, O.M., Regius Professor of Modern Religious History, Master of Selwyn College, Cambridge.

Saturday, Oct. 17 High-Temperature Superconductivity professor Jesse Brewer,

Department of Physics, University of B.C. Lecture Hall 2, Woodward Instructional Resources Centre. Free. 8:15 p.m.

Career Days 1987

Annual student career fair sponsored by the International Student Organization aiesec. 31 major companies and associations will talk about career opportunities. For information call 228-6256. Wednesday and Thursday, Oct. 7 and 8. SUB concourse. 10 a.m. - 3 p.m.

Now to October 9. Tuesday - Friday, 10 a.m. - 5 p.m.,

'Coping with Campus' Follow-up - Mature Students Support Group. Free. For information call 228-2415.

Every Tuesday, now through Dec. 15. Room 223, Brock Hall (Women Students' Lounge). 12:30 – 1:30 p.m.

Nuclear War: Political and Scientific Issues. Michael Wallace, Political Science, UBC. Every Monday, now to

Non-credit conversational programs in French, Spanish, Japanese, Cantonese and Mandarin now on. Courses in Business French, Business Japanese and French Lyrics and Music, will be offered. For information, call 222-

Office for Women Students Seminar

Science for Peace Lecture Series

December. Room 318 Hennings. 12:30 p.m.

Continuing Education Lecture Series Art and Archaeology in Turkey. Allan Langdale, Teaching Assistant, Dept. of Fine Arts, UBC. 4 Mondays, Sept. 28 – Oct. 26. \$44. For information call

222-5237. Room 107, Lasserre Bldg. 7:30 - 9 p.m.

Southeast Asia, Dr. Jim Plazcek, Researcher, Asian

Public Affair Programs. World Politics ! - East-West Relations. First of two-part series. Part II early in 1988. Dr. Allan E. Warnke, International Relations. 10

Tuesdays, Sept. 29 - Dec. 1. \$101. For information, call 222-5238. Lecture Hall 3, Woodward Building. 7:30

Sponsored by Centre for Continuing Education under direction of Martin Berinbaum. \$60, \$40 for students. Ten Tuesdays, Sept. 29 – Dec. 1. Old Auditorium,

Alberta Badlands: A Journey Into The Prehistoric Past.

Dr. Michael C. Wilson, paleontologist, Dept. of Geography, University of Lethbridge. Oct. 2–5. \$685,

\$665 for members of UBC Museum of Anthropology.

The Fraser: A Working river,Saturday, Oct. 10 OR Sunday, October 11.David Hill-Turner, maritime and

industrial historian. \$80. For information call 222-5207. Depart from Government Dock, south foot of 4th Ave.,

Community Concert Band

Continuing Education Field Trips

Memorial Rd. 7 - 9:30 p.m.

For information call 222-5207.

Steveston. 10 a.m. - 4 p.m.

Research Institute. 5 Tuesdays, Sept. 29 – Oct. 27, \$55. For information call 222–5237. Room 604, Asian Centre.

Language Programs & Services

NOTICES

5227.

7-9 p.m.

p.m.

Fine Arts Gallery (Basement, Main Library Bldg.) Fugitive: A site specific work by Carel Moiseiwitsch.

Saturday 12 noon – 5 p.m.

Writing and Grammar - Intermediate-Advanced. \$165. Tuesdays and Thursdays for 8 weeks. For information, call 222-5208. Room 109, 2082 West Mail, Hut M18. 6:30 p.m.

WEDNESDAY, SEPT. 30

Chemistry Seminar Cubic Liquid Crystals Studied by NMR. Dr. Per-Olof Ericksson, Physical Chemistry Dept., University of Umea, Sweden. Room 225, Chemistry Building. 11:30

Geography Colloquium

. 7

The Landscape of Gentrification in a Vancouve Neighbourhood. Caroline Mills, Geography, UBC. Room 201, Geography Building. 3:30 p.m

UBC Reports is published every second Thursday by UBC Community Relations 6328 Memorial Road, Vancouver, B.C. V6T 1W5, Telephone 228-3131. Editor-in-Chief: Margaret Nevin Editor: Don Whiteley Layout: Jo Moss and Linda Coe

Contributors: Jo Moss. Lorie Chortvk. Debora Sweeney.

UBC REPORTS September 24, 1987 4

at Vanterm Office. 10 a.m. - 2 p.m.

MONDAY, OCT. 5

Classics and Fine Arts Lecture

Archaic Sculptures from the Samos Sanctuary. Prof. Helmut Kyrieleis, Director, German Archaeological Institute at Athens. Room 102, Lasserre Building. 12:30

Science, Technology & Society Lecture

Understanding Strategic Doctrine. Prof. Michael Wallace, Political Science, UBC. Room 218, Hennings Building. 12:30 p.m.

Biochemistry Seminar

Activation of Protein Kinases during meiosis and mitosis. Dr. Stephen Pelech, Biomedical Research Centre, UBC. Lecture Hall 4, IRC. 3:45 p.m.

Calendar Deadlines

For events in the period October 11 to October 24, notices must be submitted on proper Calendar forms no later than 4 p.m. on Thursday, October 1 to the Community Relations Office, 6328 Memorial Road, Room 207, Old Administration Building. For more information, call 228-3131.

THURSDAY, OCT. 8 Computer Science Colloquium

The Logic of Depiction. Alan K. Mackworth, Computer Science, UBC. Room 301, Computer Sciences Building. 11:30 a.m.

Family Sciences Seminar

After Ronald Reagan: Positive Options for America. Dr. F. Ivan Nye, Emeritus Professor, Rural Sociology, Washington State University. Room 60, Family and Nutritional Sciences Building. 12:30 p.m.

History Lecture

Cecil H. & Ida Green Visiting Professor. Mussolini and the Pope During World War II. Sir Owen Chadwick, O.M., Regius Professor Emeritus of Modern History, Cambridge. Room A100, Buchanan Building. 12:30 p.m.

Faculty Association General Meeting Room 100, Math Building. 1 p.m.

A series of four evening lectures, 4 Tuesdays, Oct. 6 27. Growing from the Roots Up: Community-Based Economic Development. Various speakers. \$75, students \$30. For information, call 222-5238. Lecture Hall A, School of Social Work, 6201 Cecil Green Park Rd., UBC. 7:30 p.m.

Continuing Education/Social Work Lectures

Essay Skills Workshops

Nancy Horsman, Office for Women Students, UBC. Free to UBC students. For information call 228-2415. Thursdays, Oct. 22, 29 and Nov. 5. Buchanan B212. 12:30 - 1:30 p.m.

Oldtimers Hockey

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

Faculty and Staff Exercise Class

Instructor S. Brown. For information call 228-3996. Robert Osborne Centre, Gym B. Mondays, Tuesdays and Thursdays; 12:30 - 1:05 p.m.

UBC Gymnastics Club

Registration for Term 1 now on. A variety of courses at all skill levels and ages is available. For more information, call Community Sport Services at 228-3688.

Continued on P. 3