WILL TAKE THREE YEARS

UBC Participates in Major Health Study

What do British Columbians do when they feel ill?

Do they consult a physician? Talk it over with the corner druggist? Appeal to neighbors for advice? Go to a chiropractor?

MANY QUESTIONS EXPLORED

And when they're really sick, do they get the kind of help they need, from doctors, nurses, social *workers, dentists,* rehabilitation *therapists?*

What pills and medicines do they take routinely, and why?

Do they wait too long in their doctor's office before he can see them? Will he come to their home if necessary? How do they feel about doctors and other health workers?

These are some of the questions that will be explored in a major study to be undertaken next spring by UBC in co-operation with the various professions in the health field.

The study, including computer-analysis of masses of statistical data, will take three years and will form part of a seven-nation project known as the International Collaborative Study of Medical Care Utilization.

FOUNDATION GIVES SUPPORT

The B.C. study will cost an estimated $500,000. The newly formed Donner Canadian Foundation of Montreal will contribute $42,000, the remainder will be sought from the federal government.

The study will be conducted by the Department of Health Care and Epidemiology of the UBC Faculty

Please turn to back page
See STUDY WILL AID PLANNERS

UBC Reports

RETURN POSTAGE GUARANTEED

VOLUME 13, No. 6 | VANCOUVER 8, B.C. | OCTOBER, 1967

FIRST YEAR ENROLMENT UP

Increased enrolment in the first year of the three largest faculties at the University of B.C. has registration officials puzzled.

Increased freshman registration in the faculties of arts, science and education is largely responsible for pushing UBC's 1967-68 enrolment to a record total of 18,359.

This is within 146 students of a predicted enrolment of 18,213, and an increase of 1,140 students over the previous year's registration.

NOT EXPECTED

Mr. J. E. A. Parnall, UBC's registrar, said the increases in arts, science and education were not expected this year. "We thought that freshman enrolments would remain about the same as last year," he said, "with any added load of students registering at Simon Fraser University and the University of Victoria."

Instead first year enrolments are up in arts from 1,446 to 1,598, in science from 1,206 to 1,363 and in education from 461 to 576.

Mr. Parnall said an analysis of first year student registrations would be made to determine if there was any increase in numbers of students coming from specific geographic areas of the province.

He also emphasized that the current figures for 1967-68 registration were preliminary and would be subject to slight change in ensuing months.

Enrolment at B.C.'s three public universities — Simon Fraser, Victoria and UBC — now totals 27,403 students, as against a total of 24,842 last year.

Mr. R. R. Jeffels, registrar at the University of Victoria, reported a total enrolment of 4,031 students as against 3,423 in 1966-67. He said the University's freshman enrolment was up only slightly and there were substantial increases in registration at the third and fourth year levels.

Simon Fraser officials said they had registered 5,013 students as compared to 4,200 the previous year.

The faculty of arts, with a total registration of 5,649 is still UBC's largest faculty.

GRADUATE STUDIES

Registration in the faculty of graduate studies also showed a substantial increase from 1,616 last year to 1,727 in 1967-68. Within the faculty, registrations for the doctor of philosophy degree program went up from 552 to 633.

Here are registration figures for each UBC faculty with last year's totals in brackets: arts, 5,649 (5,405); science, 3,422 (3,212); education (including physical education), 3,281 (3,061); agriculture, 220 (206); applied science (including architecture and nursing), 1,497 (1,388); commerce and business administration, 1,129 (1,021); dentistry, 39 (22); forestry, 222 (237); law, 402 (333); medicine (including rehabilitation medicine), 335 (331); pharmacy, 132 (125); graduate studies, 1,727 (1,616); qualifying year for graduate studies and unclassified, 304 (262). Grand total, 18,359 (17,219).

Nobel Winner Appointed

The eminent Australian neurophysiologist Sir John Carew Eccles has been appointed Distinguished Visiting Professor in neurophysiology in the Kinsmen Laboratory of Neurological Research of the UBC Department of Psychiatry.

Sir John is the first Nobel Prizewinner ever to be associated on a continuing basis with the University of B.C.

As Distinguished Visiting Professor he will spend several weeks each year studying and working at UBC. He has recently taken up a post as Professor of Neurophysiology at the University of Buffalo.

Sir John is best known for his explorations of the intracellular phenomena that characterize nerve cells and their inter-communications.

In 1951 he devised a technique for implanting an electrode in an individual brain cell and recording changes in the minute electrical currents generated in the cell.

It was this breakthrough, and other work that flowed from it, that won Sir John the 1963 Nobel Prize in medicine, an honor he shared with two British researchers.

Sir John was awarded an honorary doctor of science degree at UBC's annual congregation in 1966.

Social Work Head Named

Dr. George M. Hougham has been appointed Director of the UBC School of Social Work. The appointment was approved by the Board of Governors at its meeting October 3.

Dr. Hougham, 45, was born in Vancouver and received his BA and MA at the University of Toronto, and his Ph.D. from the University of Pennsylvania in 1954.

From 1958 to 1963 Dr. Hougham was Director of Research and Special Projects for the Canadian Welfare Council. He then served two years with the Bureau of Social Affairs at the United Nations in New York, and was professor at the School of Social Work at Western Reserve University, Cleveland, until he joined the UBC School of Social Work as associate professor in July, 1966.

Dr. Hougham has been acting director of the school since February of this year, when Prof. William G. Dixon relinquished his position as director because of ill health.

Prof. Dixon, who returned from sick leave on August 31, has resumed his duties as professor in the School of Social Work.

UBC CHEMIST Dr. David C. Walker demonstrates the use of a new high energy radiation source called a Gammacell to graduate student Geraldine Kenney. The four-ton machine will be used to change the properties of water and various other substances. Details below. Photo by B. C. Jennings.

WEIGHS FOUR TONS

Thick Lead Wall Hides High Energy Radiation

A new tool for investigating the chemical changes resulting from high energy radiation has been installed at the University of B.C.

The compact machine, known as a Gammacell, is manufactured by Atomic Energy of Canada Limited and conceals its deadly radiation source in the heart of a protecting column of lead a foot and a half thick.

The Gammacell, which weighs more than four tons, will be located in UBC's chemistry department where it will be used by a number of scientists for experiments designed to reveal what happens when gamma radia-

Please turn to back page
See GAMMACELL

THREE UNITS READY FOR WINTER SESSION

New Building Named for Former President

Three new buildings marking milestones in the development of the fine arts, the health sciences and athletics were ready and waiting for students enrolling for UBC's 1967-68 winter session.

The developments, which cost just over $10,000,000, provide modern facilities for the department of music, the faculty of dentistry and the school of physical education.

COSTLIEST DEVELOPMENT

The costliest development of the three is the John Barfoot Macdonald Building (Dental Health Sciences), named for UBC's former president whose resignation became effective at the end of June this year.

UBC's Dean of Dentistry, Dr. S. Wah Leung, said the building was named for Dr. Macdonald in recognition of his key role in establishing the faculty. He was consultant on dental education to UBC in 1955 and wrote two reports which served as blueprints for development of dentistry.

DENTAL HYGIENE

Dean Leung says the new dental teaching and research facilities will allow for increased student enrolment, a program to train dental hygienists, expansion of continuing education programs, and future postgraduate training. Faculty research will also be greatly facilitated.

Designed by Thompson, Berwick, Pratt and Partners, the Macdonald building is an integral part of the Health Sciences Centre.

It is linked to the department of anatomy and near the Medical Sciences buildings and Woodward Biomedical Library — facilities which the dental students use. As part of the faculty's building program, additions of about 52,000 square feet have been made to the Medical Sciences buildings to provide teaching and research facilities in basic medical sciences for dental students.

Cost of the Macdonald building and additions to the Medical Sciences buildings was $6,350,322.

The Macdonald building will accommodate up to 160 dental students and 20 dental hygiene students. Present enrolment in the faculty, which began in 1964, is 39 with first year students numbering 20.

TWENTY SELECTED

"Next year we will be able to take 40 first year students," says Dean Leung. "This year, out of about 160 applicants, 60 reached the standard for admission, but we could only select 20 because the facilities are incomplete."

A three-storey concrete structure of approximately 70,000 square feet, the building provides for the addition of two future floors.

The building's ground floor includes a surgical suite, teaching clinic for children's dentistry and orthodontics, staff offices and research laboratories.

The main entrance to the Macdonald building leads directly to the second floor patient reception and waiting areas. On this floor are the main clinic, the diagnosis and lead-lined X-ray clinics, the technology teaching laboratories, demonstration clinics, faculty and staff offices, research laboratories and a patient records room.

COMPACT CLINIC

The main clinic will eventually contain 80 chairs in a compact, versatile cubicle system. Each student, assigned to his own cubicle, will carry out all his clinical practice there with the exception of diagnosis, radiology and surgery. Attached to the main clinic is a large dispensary and two X-ray rooms for making radiographs during treatment.

Funds for the Macdonald building came from the 3-Universities Capital Fund, the provincial government and the federal government's Health Resources Fund. Contractors for the building were Dawson & Hall Ltd.

★ ★ ★

The newest addition to the Norman MacKenzie Centre for Fine Arts is the $2,575,842 building for the department of music, which formerly occupied an abandoned forest products building, an agronomy barn and several huts.

The music department, which opened in 1959 with 27 students and eight faculty members, has this year enrolled a record 200 students and has a teaching staff of 48. The building can accommodate 300 students and 50 faculty members.

Dr. G. Welton Marquis, head of the music department since it was created, said, "The new building has provided us with greatly improved teaching and practice conditions, valuable listening and ear-training aids, and a building fund has enabled us to buy a quantity of new instruments.

"With these facilities and equipment we hope to concentrate more on graduate work and have already increased our graduate enrollment from five last year to about 14 this year."

Among the new facilities are 20 cubicles for disc and tape listening and two rooms for group phonograph listening. The building is wired for television and radio broadcasts as well as closed-circuit television, and music can be recorded from or transmitted to any part of the building through a central control room on the main floor.

SOUNDPROOF STUDIOS

Teaching studios are soundproofed for the first time, and the electronic studio has been expanded and re-equipped. More than 30 new pianos have been purchased, including concert grands, and a variety of woodwind, brass and stringed instruments.

The recital hall has provisions for a future pipe organ which, when acquired, will give UBC the distinction of being the only organ teaching institution in B.C.

The four-storey building was designed by the architects Gardiner, Thornton, Gathe, Davidson, Garrett, Masson and Associates to harmonize with the adjacent Frederic Lasserre building for architecture and fine arts and the Frederic Wood Theatre, the other units of the Norman MacKenzie Fine Arts Centre.

Funds for the building were provided by a Canada Council grant of $736,297, with the balance from the 3-Universities Capital Fund. Contractors were Burns & Dutton Construction (1962) Ltd.

★ ★ ★

UBC's unique Thunderbird Stadium will be opened officially October 7 and will provide new facilities for the school of physical education and an unexcelled rugby, football, and soccer field as well as an all-weather running track.

The opening ceremony will be carried out by Allan M. McGavin, chairman of the Pan-American Games Committee for Canada, which was responsible for the Pan-Am Games in Winnipeg this year.

Mr. McGavin, who has been closely connected with the development of amateur sport in Canada, is also a member of UBC's Board of Governors.

The opening ceremony at 1:45 p.m. will be followed by the first athletic event to be held in the Stadium — a rugby match between the B.C. All-Stars and past and present UBC players.

SUSPENDED ROOF

The 3,000-seat Stadium, which cost about $1,200,000, was designed by Vancouver architect and UBC graduate, Vladimir Plavsic. Consulting engineer for the Stadium roof, which is suspended on 1½ inch cables from a dozen 80-foot stressed-concrete posts, was Boguslaw B. Babicki, a part-time lecturer in mechanical engineering at UBC.

Each of the 12 concrete posts is surmounted by a cast of a Thunderbird designed by Kelowna sculptor and artist Zeljko Kujundzic.

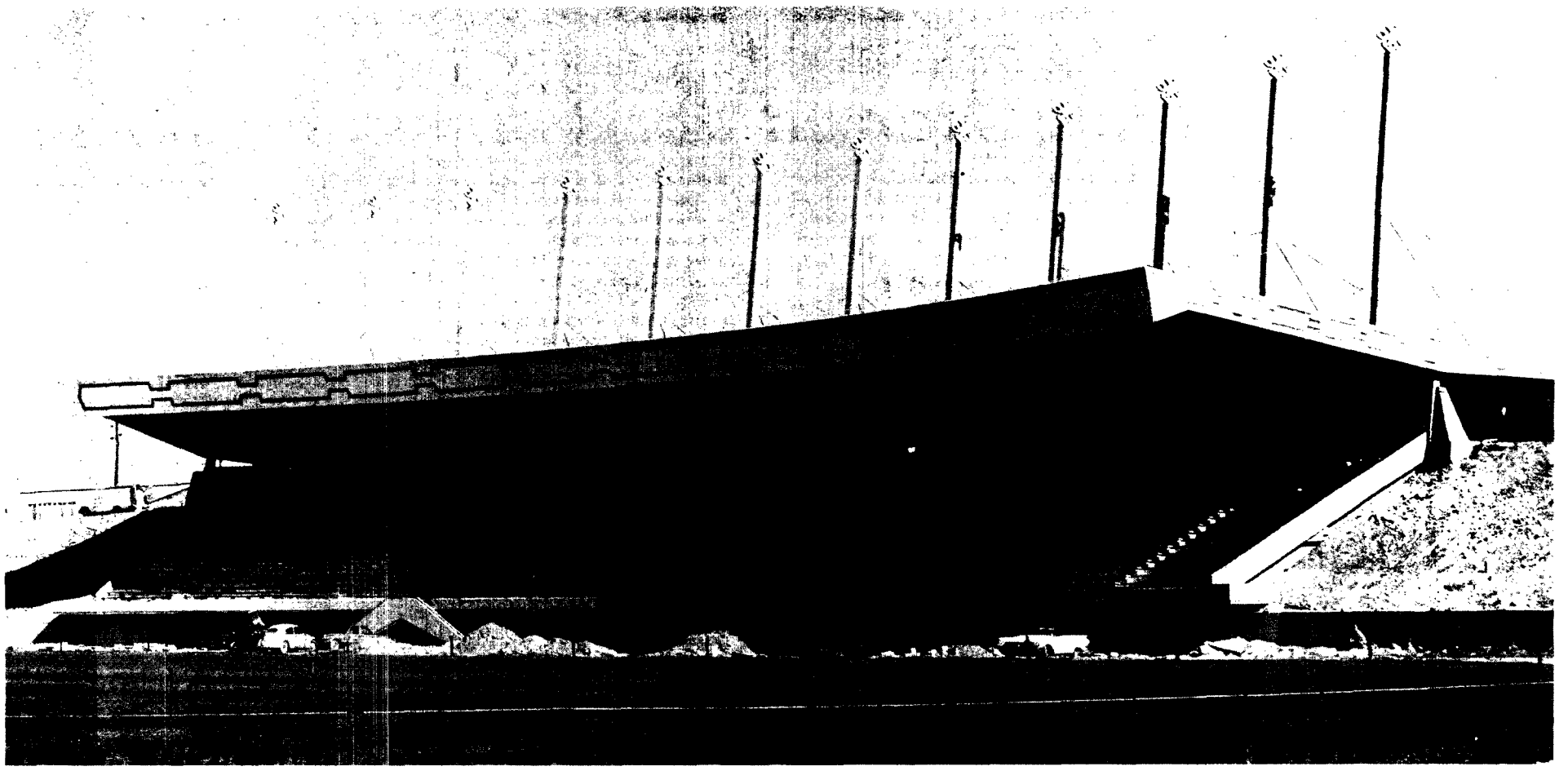
Among the facilities included in the new Stadium are a training room named for the late UBC trainer John Owen, built with a $4,000 gift from alumni, and a scoreboard and track timing device purchased with a $5,000 gift from the 1967 graduating class.

Athletic facilities include changing and shower rooms, a 30 by 50 foot wrestling room and a facility for game officials.

The 440-yard track which encircles the central playing field and equipment for field events will be installed in the coming year.

DENTISTRY STUDENT Marvin Christianson, left, examines a young patient in the ultra-modern clinical facilities of the new John Barfoot Macdonald Building for dental health sciences at UBC. Taking an interest in the examination are Dr. John Ryan, right, part-time clinical instructor in UBC's dental faculty, and dental assistant Annette Weatherhead. Photo by B. C. Jennings.

NEW MUSIC BUILDING at UBC is the latest addition to the Norman MacKenzie Centre for Fine Arts. Located adjacent to the Frederic Lassere building, seen at right, the new music building will accommodate 300 students and contains a 285-seat concert theatre as well as classrooms, faculty offices and sound-proofed practice studios. A month of special programs is planned in January, 1968, to mark the opening of the building. Photo by B. C. Jennings.



UBC's new 3000-seat Thunderbird Stadium will be officially opened Oct. 7 to provide new field facilities for rugby, football, soccer and track and field events. The Stadium cost about $1,200,000 and replaces the student-built stadium on the East Mall which has been demolished to make way for the new Student Union Building. View-obstructing posts in the new stadium have been eliminated by suspending the roof on 1½-inch cables from 12 concrete posts.

NINE PROJECTS UNDERWAY

UBC Construction Exceeds $22,000,000

The familiar roar of bulldozers, concrete trucks and scoop shovels continues to pervade the University of B.C. campus as the result of a building program totalling more than $22,300,000.

A total of nine projects, including four residence towers and the first two units of the new University Hospital in the Health Sciences Centre, are currently under construction to keep pace with growing enrolments.

Here is a rundown on all current campus construction projects.

RESIDENCES: Four new residence towers, costing a total of $3,615,000 are underway in the Place Vanier (Lower Mall) and Totem Park residence areas.

The two Totem Park towers, costing $2,413,000, will add 400 beds to the existing 800 units there. Construction involves closure of Agronomy Road and provision of a replacement road leading to student and faculty parking lots at the south end of the campus.

The Place Vanier towers, costing $1,202,000, will house 192 male students. Students living in both developments will eat in common block facilities in each residence area.

The contracts are a further step in UBC's plan to increase total residence space for single students by 75 per cent—from 2,662 beds to 4,690 beds—by 1971.

Rapidly nearing completion at the south end of Acadia Road is the new $4,600,000 Acadia Park development consisting of 275 units for married graduate students.

The development consists of one, two and a limited number of three-bedroom suites as well as a 12-storey high-rise tower containing 100 suites.

The development will include specialized areas for graduate students and their families, study areas, a play area for children and communal social and laundry facilities.

Residence developments at UBC are financed through borrowings from Central Mortgage and Housing Corporation. Residences are operated on a non-profit basis and rents are used to repay borrowings and meet operating costs.

HEALTH SCIENCES CENTRE: The first two units of the University Hospital are under construction at a total cost of $5,376,304.

The Hospital wing will provide facilities for psychiatric services and includes three 20-bed nursing units, facilities for day and night care of patients, research laboratories, and UBC's Neurological Research Unit.

The UBC Health Sciences Centre, when complete, will comprise a 14-building complex to serve as a major referral centre for problem cases from all over B.C., a major research facility, and a pioneering centre for the integrated teaching of all the health sciences.

Costs of the psychiatric unit are being shared equally by the B.C. Hospital Insurance Service and the federal Health Resources Fund.

METALLURGY: A new six-storey metallurgy building, which will include a Centre for Materials Research, is under construction on a south campus site set aside for the Faculty of Applied Science. It will cost $2,600,000.

The building will provide the metallurgy department with floor space equivalent to that now in use in seven dispersed buildings.

The Materials Research Centre is financed with a grant of $375,000 from the National Research Council and will stimulate and expand research in the preparation and properties of materials, including metals, ceramics and plastics with emphasis on applications to real problems.

STUDENT UNION BUILDING: The new SUB, which is being constructed on the site of UBC's original stadium, will cost in excess of $5,000,000.

About $3,000,000 of the cost will be provided through an annual assessment of $15 per student which began in 1964.

UBC's Board of Governors will provide two grants to aid the project—$1,100,000 for food services and $202,880 as a general contribution to costs out of rentals prepaid by the Bank of Montreal for 35-year occupancy in the new student building.

COMPUTING CENTRE: The overhanging east wing of the civil engineering building is being enclosed to provide 5,000 square feet of space on two floors for new computing centre quarters.

The addition, costing $300,952, will provide offices, key-punch facilities, a small library and a seminar room.

BOOKSTORE: An addition to the campus bookstore, costing $108,245, will provide increased sales and storage space to the south of the existing store.

SCENERY SHOP: A new scenery shop is being constructed at the rear of the Frederic Wood Theatre at a cost of $142,100. The existing shop, at the rear of the UBC armoury, will be demolished.

FACULTY CLUB: Interior renovations and a new wing to the Faculty Club are being built at a cost of $723,821. The new facilities are designed to provide more efficient food services for UBC's growing faculty.

The cost of the Faculty Club construction is being paid for by members through increased membership fees and a surcharge on sales.

DR. WARREN D. KITTS

New Animal Science Head Named

Expansion of extension activities and research into nutritional diseases in animals is forecast by Dr. Warren D. Kitts, the new chairman of the animal science division of UBC's faculty of agriculture.

SUCCEEDS DEAN

Dr. Kitts, 44, who has been a UBC faculty member since 1953, succeeds Dr. Blythe Eagles, who held the posts of dean of agriculture and chairman of the animal science division until his retirement this year.

UBC's new dean of agriculture, Dr. Michael Shaw, said he was delighted that Dr. Kitts had accepted the appointment.

"Dr. Kitts," he said, "is one of Canada's leading animal scientists and is singularly fitted to fill the post because of his intimate knowledge of the B.C. scene and the contributions he has made to research.

HIGHLY REGARDED

"He is highly regarded by scientists in this field in all parts of Canada and is in touch with the latest developments in animal science, which is an important aspect of B.C. agriculture."

Dr. Kitts, whose main research interest is in the field of animal nutrition, said the division would expand its present research work and appoint additional staff to emphasize nutritional diseases resulting from impaired metabolism.

DR. WARREN KITTS

He also predicted a closer liaison with the departments of plant and soil science in the agriculture faculty to develop further research in forage utilization and trace mineral nutrition.

DISSEMINATE RESULTS

Dr. Kitts said he also plans to widen the extension activities of the division to disseminate experimental results throughout the farming community.

Dr. Kitts is a native of North Vancouver, B.C., and was awarded the degrees of bachelor and master of science in agriculture by UBC in 1947 and 1949. He obtained his Ph.D. from Iowa State University in 1953.

For the current year he has been awarded $30,000 in research grants. A total of 12 graduate students are registered in animal science and ten of them are under Dr. Kitts' direct supervision.

HEADS SOCIETY

Dr. Kitts has published more than 60 papers on research topics and is currently president of the Society of Animal Production, which has a membership of about 400 professional animal scientists in Canada.

EMPLOYER BELIEFS IDENTIFIED

'Disadvantaged' Studied by Psychologist

If you're an ex-mental patient in search of a job it will probably pay you to seek out a company with a female personnel officer, according to a University of B.C. psychologist.

This is a single example of an attitude toward the hiring of "disadvantaged" persons which has been uncovered by a UBC research team currently working on a federal-government supported project.

The research team, headed by psychology professor Edro Signori, is using a $4,100 grant from the federal department of manpower and immigration to discover the basic attitudes of employers toward the hiring of socially disadvantaged persons.

ALL TYPES INCLUDED

"We are interpreting the word 'disadvantaged' in the widest possible way," said Dr. Signori, "to include the physically and mentally handicapped, school dropouts, ex-criminals, older workers, ethnic minorities, and women, since some employers don't regard women as the equals of men."

Dr. Signori and two graduate students are examining in detail some 400 books, articles and research reports in an attempt to tabulate the beliefs which lead to the development of attitudes toward the disadvantaged.

"In comparing the attitudes of men and women employers," he said, "the literature suggests that women are more tolerant toward former mental patients than are men. As a result, the disadvantaged in this area will probably find it easier to find employment if the hiring decision is made by a woman."

The socially disadvantaged present a real problem in present-day society, Dr. Signori believes.

"There is little question," he said, "that the disadvantaged have a harder time finding jobs, are unemployed for longer periods than normal persons, and take longer to find jobs if they have to be re-employed."

The research team has already identified 70 different beliefs on the part of employers toward persons who are physically handicapped.

"Some employers believe," Dr. Signori said, "that the physically handicapped require special facilities, that they have less stamina, and are less capable than normal persons in dealing with the public, to name only a few of the negative beliefs.

"We also found some positive beliefs about the physically handicapped. They are said to be kinder and more alert on the job."

The main concern of the research group is to isolate the beliefs which lead to the formation of attitudes on the part of the employer.

"Some of the beliefs may be completely unfounded," Dr. Signori said, "while others may be supported by evidence contained in the research studies we are examining."

Ultimately, he said, the aim of the research should be an educational program prepared by the government to do two things. "Where there are unfounded prejudices," he said, "there should be a campaign designed to counteract misconceptions.

"And where there is supporting evidence for beliefs, the emphasis should be on selecting disadvantaged persons for jobs which are suited to their abilities and talents."

STUDENTS TAKE PART

Another aspect of the study is to determine if negative or positive attitudes toward one category of disadvantaged persons are generalized to include other categories.

In the preliminary stages, two groups of students will take part in the study in an attempt to determine if changes in attitude result from education.

A first-year group and a fourth-year group will be asked to relate beliefs about the disadvantaged on a seven-point scale ranging from strong disagreement to strong agreement. Later it is planned to study similar ratings by employers.

"By applying some statistical techniques and running the ratings through the computer, we may come up with a picture of the nature of prejudiced attitudes and the beliefs which are involved in these attitudes," Dr. Signori said.

GIFT TO UNIVERSITY

Book Collection Will Attract Leading Scholars to Campus

A library of nineteenth and early twentieth century English literature, consisting of nearly 500 author collections, and valued between $150,000 and $250,000, has arrived at the University of British Columbia.

The man who assembled it during almost half a century, one-time bookseller Reginald Norman Colbeck, 64, has come from England and will spend the next five years as a bibliographer in UBC's library, engaged mainly in the preparation of a descriptive catalogue.

The 50,000-item collection, which is a gift to the University from Mr. Colbeck, is regarded as one of the finest in private hands of this period, exclusive of the novel. It was shipped from England in 118 wooden cases, weighing more than eight tons in all.

The negotiations which brought the collection to UBC were made by Professor William E. Fredeman, of UBC's English department, who was in England in 1965-66 on a Guggenheim Fellowship. He said its presence at UBC would mean that the library resources in the area covered would advance from zero to almost fifty on a scale of a hundred.

"The Colbeck Collection," Prof. Fredeman said, "includes the work of 485 separate authors, plus various special collections, and will strengthen the Library's holdings. In fact, it will comprehensively represent the major and minor authors of the period covered."

Prof. Fredeman said the fact that UBC had such a collection would attract many scholars to the campus and aid in the development of graduate studies in English literature and bibliography.

VALUABLE COLLECTION of books has been given to UBC by Norman Colbeck, right, who spent half a century collecting them. He is shown discussing one of the collection's manuscripts with UBC English professor, Dr. W. E. Fredeman. Photo by B. C. Jennings.

FIRST EDITIONS

The books are mainly first editions, and in unusually fine condition. There is a special emphasis on 'presentation' and 'association' copies — books with autograph inscriptions from their authors, often to significant contemporaries.

There are also many duplicate copies showing bibliographical variations, often demonstrating revisions which are of value in the verification of texts.

Many of the books by minor poets and essayists are extremely rare — some, indeed, are missing from the copyright libraries in the United Kingdom. One such is T. E. Brown's "Betsy Lee: A Fo'c's'le Yarn," written and printed in 1871, a narrative poem of 49 pages, which might well realise $1,000 if it were offered at auction.

The major Victorian poets — Tennyson, Browning, Arnold, Morris and the Rossettis—are very fully represented, as is the Irish Literary Revival headed by W. B. Yeats. The collection of this author alone, which includes the Cuala Press printings, has an estimated value of $15,000.

The eighteen - nineties period is strongly represented — by Wilde, Beardsley, Arthur Symons, Ernest Dowson and others.

ORIGINAL MANUSCRIPTS

Amongst original manuscripts of twentieth century authors are unpublished works of W. E. Henley, Edward Carpenter, Michael Field, A. C. Benson, T. Sturge Moore, George Bourne, Shane Leslie and Augustine Birrell; and among the more important holdings are some two hundred unpublished letters by the First World War poet, Edward Thomas, amounting to over 500 pages, and the corrected typescript of Philip Guedalla's early biography of Sir Winston Churchill, published in 1941.

DEAN BERNARD E. RIEDEL

Dean of Pharmacy Appointed

A distinguished Edmonton biochemist has been named the new dean of pharmacy at the University of B.C.

He is Dr. Bernard E. Riedel, 48, who was professor of pharmacy and executive assistant to the vice-president of the University of Alberta. Dr. Riedel succeeded Dr. A. Whitney Matthews who retired as dean of pharmacy June 30.

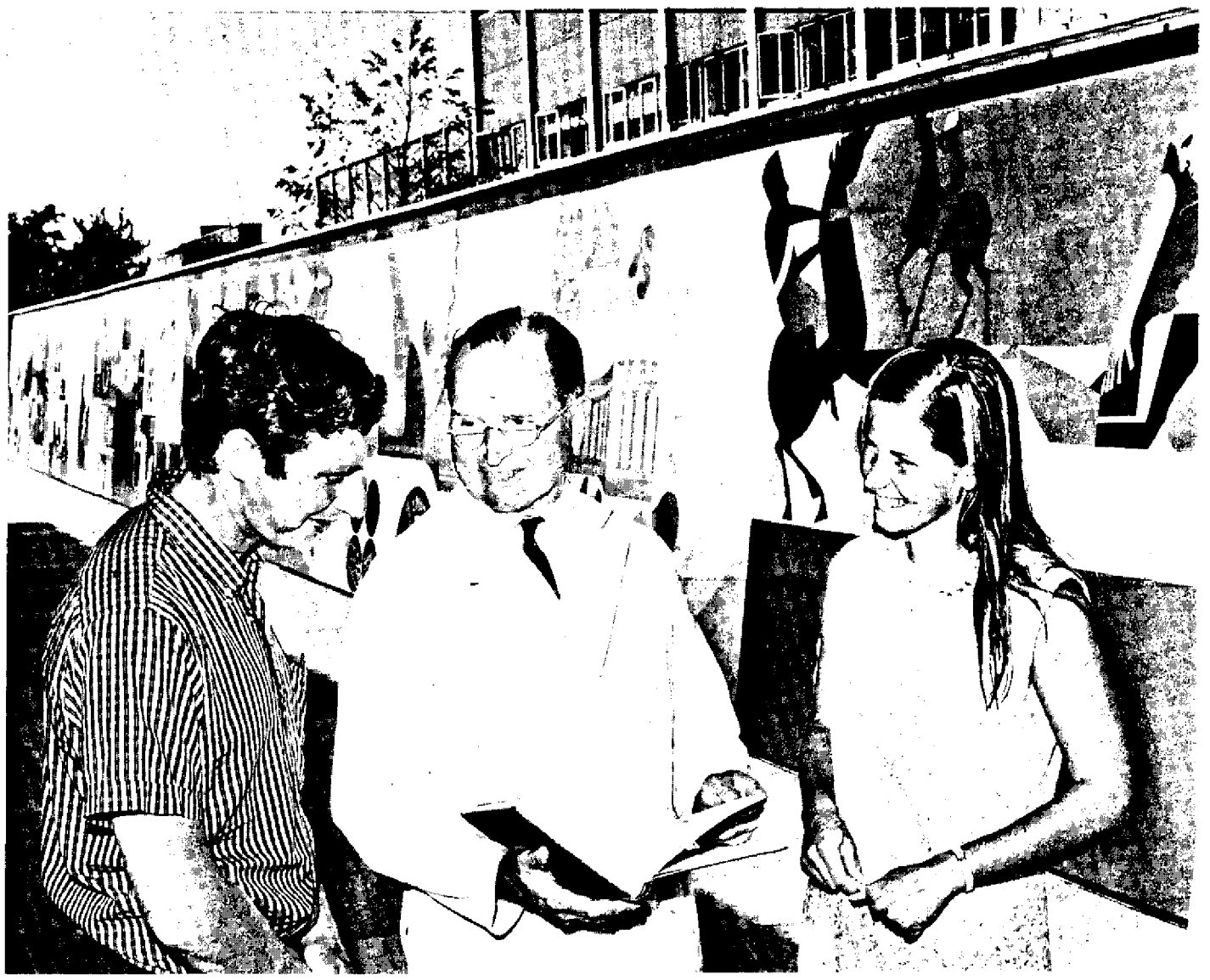
Dr. Riedel was born at Provost, Alberta and attended the University of Alberta where he obtained his B.Sc. degree in pharmacy in 1943.

That year he joined the Royal Canadian Air Force and served for three years with Coastal Command as a navigator-bombardier. He was discharged with the rank of flying officer.

Dr. Riedel returned to the University of Alberta and took his master's degree in pharmacy in 1949. In 1953 he was awarded his Ph.D. in biochemistry at the University of Western Ontario, and was then appointed assistant professor of pharmacy at the University of Edmonton. He became a full professor in 1959.

For the past six years Dr. Riedel has been executive assistant to the vice-president of the university, a post which has given him a broad familiarity with many of the problems of today's rapidly growing universities.

He has been active for many years in research, particularly into the effects of various drugs on muscle tissues and on the production of hormones in animals, and on the use of radioactive isotopes.



INFORMAL LECTURE in the history of medical discovery is given by Dr. William C. Gibson, UBC's professor of the history of medicine and science, to medical student Jean Elliott and graduate zoology student Lawrence Licht. Dr. Gibson's lecture is aided by the 50 colorful panels in the background which depict the history of medicine from Egyptian times to the computer era. Dr. Gibson originated the project and the eight-foot-high panels covering 200 lineal feet were painted by David Jensen of the Vancouver School of Art. They are on display in the courtyard north of the Woodward Library and will be used to present the history of medicine pictorially to students. Photo by B. C. Jennings.

IN APPLIED SCIENCE FACULTY

Assistant to Dean Appointed

Professor Leslie G. R. Crouch, a former president of the Association of Professional Engineers of B.C., has been named assistant to UBC's dean of applied science, Prof. William M. Armstrong.

MINERAL ENGINEER

Mr. Crouch, who has been a member of the UBC faculty since 1945, is currently professor of mineral engineering at UBC.

Dean Armstrong said Prof. Crouch would chair committees in the faculty of applied science to coordinate courses which all students must take prior to specialization and would be involved in a study of new teaching methods and space needs within the faculty.

Dean Armstrong said that for the first time this year applied science students would be using computer terminals in the classroom which linked them directly with a central computer.

"This is an experimental program," he said, "and we need to know more about this type of teaching as well as the use of closed circuit television for instructional purposes."

Prof. Crouch was born and educated in Australia where he graduated from the School of Mines at Ballarat. In 1937 he came to the United States and obtained his master of science degree in mineral engineering at the University of Utah.

WORKED IN MANITOBA

He came to Canada in 1938 to join the engineering staff of a Manitoba mining company and was later employed by the Mid-West Mining Association in Manitoba to examine working conditions in mines.

Before joining the UBC faculty he was employed by the Manitoba department of mines and natural resources as a mining engineer and inspector of mines.

ASSOCIATION PRESIDENT

Prof. Crouch has taken an active part in the affairs of the Association of Professional Engineers of B.C. and served as president of that organization in 1966.

He is a former president of the B.C. Natural Resources Conference and is chairman of the mining advisory committee of the B.C. Institute of Technology.

He has also been active in music circles in Vancouver and is a former president of the Bach Choir of Vancouver. He has been the organist at University Hill United Church since 1953.

Come Home Grads!

UBC's Homecoming week will combine seminars and sports activities with the traditional class reunions and social events.

Celebrations begin with a student-alumni frostbite regatta at the West Vancouver Yacht Club October 22 and finish with the Homecoming Ball in Brock Hall on October 28.

Academic events include a panel discussion and lecture on South East Asia, a women's public affairs seminar October 27, and three seminars on Japan: a business seminar October 27, and cultural and education seminars October 28.

Sporting activities are limited this year to a men's golf tournament and sports car rally October 27 and the regatta.

Social events begin with a Board of Trade luncheon at noon on October 23.

The Homecoming luncheon at Cecil Green Park on October 28 will be preceded by the official opening of Cecil Green Park by Dr. Cecil Green at 11 a.m. and followed by a football game in the Stadium when UBC Thunderbirds play the University of Saskatchewan.

Reunions for the classes of '27, '32, '37, '42, '47, '52, '57 and '62 begin at 6 p.m. at various places on campus, and student council members from 1916-67 have their own reunion dinner at Cecil Green Park October 27.

Students are planning to announce the name of the 1967 recipient of the Great Trekker award at a news conference prior to Homecoming weekend. The award is given annually to a graduate or friend who has given distinguished service to UBC.

The student theme for the week is a salute to the Pacific Rim countries. This involves a Russian smorgasbord October 23, a Hawaiian luau October 24, a Mexican fiesta October 25 and an Oriental tea October 27, all in Brock Hall.

Students will also provide fashion shows, teas, a parade, a patrons' reception and a queen's dinner.

Full details of events and table reservations for the Homecoming Ball are available from the Alumni Association, Cecil Green Park, 228-3313.

Two Awards Made

Maurice Gibbons, assistant professor of education at the University of B.C., has received two awards from Harvard University which will allow him to complete studies leading to the degree of doctor of education.

He is the recipient of a $5,300 scholarship donated by the Xerox Corporation and an $1,100 Harvard teaching fellowship.

MAY REPLACE HUMAN BERRY HARVESTER

Berry Picker Goes Back To Drawing Board

Agriculturalists at UBC have gone back to the drawing board for the winter in a continuing attempt to perfect a mechanical raspberry picker.

Professor Lionel Coulthard, head of UBC's agricultural engineering department, has been working for the past two years on the prototype picker, which may one day replace the human berry harvester.

Behind the decision to attempt development of such a machine is the increasingly difficult labor situation in the lower Fraser River valley area of B.C.

CRITICAL LABOR SHORTAGE

"Human berry pickers are becoming increasingly scarce and unreliable," Prof. Coulthard said, "and many Fraser Valley growers are forced to leave large areas unpicked because of the labor shortage."

The first version of the machine was built in 1966 with grants totalling $4,500 from the provincial government and Fraser Valley growers and processors. The federal government's department of agriculture has given Prof. Coulthard an additional $5,000 for further research in 1967-68.

The prototype is a two-man machine powered by a hydraulic motor which moves the 12-foot picker and also operates a shaker arm which is inserted into the cane patch.

The berries, shaken from the canes by the vibrating arm, fall onto a moving belt that passes under the canes, which are trained to form arches.

At the rear of the machine the berries fall off the platform into flats. A blast of air from a fan blows off the refuse as the berries fall off the moving belt.

Tests carried out on cane patches donated by Fraser Valley growers have convinced Prof. Coulthard that shaking the raspberry canes is unsatisfactory, partly because the shaker arm damages the canes.

Colin McLeod, an undergraduate student from Edgewood, B.C., who has been working with Prof. Coulthard, has come up with a possible solution.

During the winter he will design a rotary device which will brush, rather than shake, the berries off the canes. The device will be tested next year during the berry-harvesting season.

Not all Prof. Coulthard's problems are centered on the machine, however.

"The berries themselves present some problems," Prof. Coulthard said, "and we've come up with some interesting facts about them as the result of laboratory studies."

It has been found, for instance, that berries which are either overripe or underripe tend to hang on to the canes and are difficult to dislodge even when shaken by the machine.

Prof. Coulthard said the fact that overripe berries were hard to dislodge is something of a surprise and is apparently linked to plant hormone levels in the canes.

"As a result of this," he said, "we're planning some experiments for next year using hormone sprays that will either cause the berries to stay on the canes until most of them are ripe and ready for harvesting, or cause them to loosen and drop."

OTHER PROBLEMS RAISED

He added: "If this is successful, it will raise other problems. If the berries are ready for harvesting all at once, the processors might be faced with a volume of fruit that they're not equipped to handle."

Another fact which has emerged from Prof. Coulthard's research is that ripe berries taken from the same canes require less force to remove as the season progresses.

"We're not quite sure exactly what this means or how it can be utilized in the development of the mechanical picker. In any case, the private life of the ordinary raspberry appears to be a lot more complicated than we at first thought."

President-Designate Says Close Contact With Students Is Vital

(Dr. F. Kenneth Hare paid his first formal visit to the campus as UBC's president-designate in late August and early September. What follows is the major part of a news conference given by Dr. Hare early in his visit.)

QUESTION: What made you decide to accept the position, sir?

DR. HARE: Oh, a variety of things. I've known UBC for a long time, I've admired it as one of the major universities and I've known and liked Vancouver as a place to live. I think too that probably the best thing about it is that it is on the Pacific coast and I have a private theory that the next century belongs to the Pacific coast, so if you are going to take a Canadian university on, this is a good one.

QUESTION: Would you elaborate on that?

DR. HARE: Well, I think basically it's just the rise of Asia in world affairs. I don't see any way of stopping this. It's quite obvious that the major concentration of the world's population is going to be around the South West Pacific. And, if that is so, both the political and the economic opportunities are there in South East Asia — I mean that's where they are now, of course, and that's going to go on growing. I see this of course as mainly, at the moment, an involvement with the Americans, but I have no doubt whatever the same thing will happen here in Canada.

STAKE IN ASIA

QUESTION: How do you see the University of British Columbia becoming involved with Japan or with the rest of South East Asia?

DR. HARE: Well, I don't know much about this University in detail yet, but I know it already has, for example, a fine library of Asiatic collections, and this is obviously a sensible thing for a Pacific Coast university to have and I should have supposed that this country ought to have one or two universities with a deep stake in Asiatic affairs.

QUESTION: Do you want to see a strong, excellent Asiatic department?

DR. HARE: I think I did say that I don't know enough about UBC to make statements that strong. I did say that in coming to UBC I had it in mind that the Pacific is the ocean of the future and universities ought to be where the action is. They ought to belong in the world of affairs. They do, of course, and if the Pacific is going to rise, relatively, I am sure that there is going to be a great opportunity for the universities on the Pacific coast.

QUESTION: What is your attitude towards dissent on the university campus?

DR. HARE: It depends on what you're dissenting from. I think that a university has to be a place where every question is open. It's a place where questions are asked and answered. The university itself doesn't go around preaching any gospel but certainly I would think that a healthy university has to have its doors open to ideas, religious, for example, and any other body of ideas that leads to dissent, but a university has got no business taking sides in matters of this kind.

Its only business is to keep its doors open to every kind of opinion. The main business of a university is to train the critical faculty and to train the intellect, and you can't do that if you shut certain doors.

QUESTION: Universities across North America in recent years are inclined to champion causes of one kind or another. The American Civil Rights movement in the United States is an example of university students from all corners of the country, and even from Canada, taking part. Do you think that's a healthy situation?

HELP UNDERDOG

DR. HARE: Well, students have always taken sides on behalf of the underdog. They did when I was a student. As far as I know they always have and I think it's a good thing that they should. The great thing about a teenager and a young man in his low twenties is that his conscience is still active and he still has all his idealism, but he hasn't learned how difficult things actually are. I'm certainly in favour of—shall we say I would hate to think that the students were not interested in the woes of the world.

QUESTION: Some universities are getting so big that they are being referred to as multiversities. Do you think that huge university complexes are as effective as smaller ones?

DR. HARE: I'm a big university man. I think that the virtues of a small university have been grossly exaggerated. The point is that a modern university has to be complex, because knowledge is complex. You've got to be able to afford to have a very wide variety of departments. You've got to be able to afford to have a huge library to cover the waterfront. The only way you can do this is to have a big enough operation to be sure that you really are covering it.

Now the small universities and colleges were tuned in on a very much simpler world when things were simple and you could really say that the object was to study the classics and mathematics and the other things that don't occupy much space. But this isn't true of the modern university at all, so I'm in favour of the big university from this point of view.

KEEP UNIVERSITY HUMAN

But, having said that, I know how difficult it is to keep a big university human. This is the big problem of the day—how do you make a big university exist as a sympathetic place to the individual student?

QUESTION: Is that what you mean by the title of your book "On University Freedom," or do you put some other meaning on that title?

DR. HARE: I put some other meaning on that title. That meaning is that I would like to see the universities stay free in an age of state financing. They were free in the old days because they didn't matter.

QUESTION: Does that mean that you would like to see them get adequate financial support without any ties on the money?

DR. HARE: Not quite, but I'd like to see them in effect create their own ties. I personally feel that the university community has to arrive at a method of disciplining itself, of keeping its own relations with society on an even keel. Universities are such complicated operations that only university people, it seems to me, know how to run them. That means that the university people have an obligation to see to it that they are run economically and that they co-ordinate.

What I really mean is that if you claim the freedom that universities do claim, then it must be done responsibly. You've got to accept the responsibility as well as seeing to it that the public money is wisely spent. This is what the British try to do through their University Grants Committee. It gets more difficult all the time but I think it has to be attempted because if anybody else tries to do it, they'll find out how difficult it is to run universities.

QUESTION: What are your views on the standards of entrance into universities today? Do you think they should be raised?

SELECT STUDENTS

DR. HARE: Well, that depends on which university you are talking about. Some universities most certainly should raise their standards, others might conceivably lower them, but at the moment I think that the proportion of Canadian youth going to university is actually too small, not too high, and I think that the proportion could be increased.

What we need to do is to have a much more efficient way of selecting them. I don't know what that way is yet but at the moment 9% of the young Canadians go to college and I think that the proportion should probably be at least doubled, and I say that in spite of the fact that there is a very big drop-out at the present time. The 9% we are taking in are not necessarily the right 9%. Somehow we have got to find a way of getting the right 9%, or the right 15%.

QUESTION: Right in terms of what, sir?

DR. HARE: Right in terms of their ability to finish the course and get a good degree out of it and get value for their time spent.

QUESTION: Does this in any way indicate an abolition of tuition fees?

DR. HARE: No, I don't think it does. I don't think that tuition fees are a barrier but I certainly think that if you have tuition fees there should be a way in which the deserving child who really can profit should be able to get those fees covered.

May I cite my British experience for a minute. I've been over there four years and I think it's true to say that any child over there who can meet the minimum requirements is absolutely guaranteed full support through university or technical college, and this is true provided he has the minimum qualifications.

QUESTION: Are you saying that should be done here?

DR. HARE: I'd prefer to defer an answer to that until I've looked at it. I don't think it is working very well in Britain because they haven't got enough university places. What they've done is to make it possible for any qualified youngster to go to college, if he can get in. But in fact only half of the ones that are qualified do get in, which is a tragedy. And this isn't a question of the state being unwilling to pay their fees, it's a question of the state having been unwilling to put up the capital required to build the universities.

QUESTION: When you said that you believe in a large university, do you think a 30,000 student university is too large or do you think 20,000 is enough for one university?

DR. HARE: The question is, can you run a good 20,000 university or can you run a good 30,000 university? In principle, I don't know any reason why you couldn't run a good 100,000 university, but in fact I know we don't.

MANY FAIL

The question seems to me to be this — what can you do in the structure of a big university like UBC or California or McGill or the other big fellows of the continent — what can you do to their structure that makes the student feel that he really knows the place, that he really belongs, that there is someone he can talk to. At the moment I know very well that in the universities outside UBC —this is no comment on UBC because I just don't know the place — but outside this university the ones I do know fail in this respect.

It boils down to this—that if the student in a Canadian university does an honors degree, if he takes the major part of his studies in one discipline, he will attach himself to that department and that usually means that he feels he belongs. But, if he does a general degree —and a lot of people think this is the right kind of degree because it gives you a broad education—there isn't any one department he belongs to; instead he finds himself one of some thousands of people having no particular home that he can call his own. Now, I think that what you have somehow to do is to find a way of getting the virtues of the honors degree attachment to the department communicated to every student on the campus.

Dr. F. Kenneth Hare, UBC's president-designate, makes a point to reporters at his first news conference.

RESEARCH CENTRE

QUESTION: Do you see UBC becoming a research centre, a highly sophisticated research centre, or the basis for one?

DR. HARE: Every major university must or it isn't a major university. A university is a place where knowledge is advanced and nowadays that means you have to have big research on the university campus.

QUESTION: I'm talking about major facilities and this kind of thing.

DR. HARE: Well, in the sciences, this means major facilities and I don't see any alternative to this. I think if a university gets to be a slave to its big equipment then it's in trouble, and this has happened in places in the States. Universities have become so muscle-bound with heavy gadgets that it warps their entire program.

You can't allow that to happen but, equally, you can't get along these days without big equipment in the science departments and engineering and forestry and the other technical fields, and a university without this is crippled.

QUESTION: Would you couple this with, say, more emphasis on graduate studies in universities?

DR. HARE: Well, of course. This country at the present moment is living in a fool's paradise as far as advanced studies are concerned. It just does not meet its own demand for higher degree studies. It relies on imported brains from overseas. What we do in fact when we set up a new university, like Simon Fraser or Victoria, or start a new faculty at UBC, is to make a private bet that somewhere in England or Germany or the United States or Hawaii or Australia there are some people who will come and work for us, because that's where the staff will have to come from.

This country is not even nearly self-sufficient. It's the only rich country in the world that isn't self-sufficient, and it's an absolute obligation on rich countries to be self-sufficient in people with advanced training. I mean by that the senior professions — I mean the full requirement in graduate work and it's got to be done inside Canada.

Now, I've just been serving on the Spinks Commission in Ontario looking into this situation in the Ontario universities, which are very strong numerically. They are nowhere near meeting the Ontario requirement and they are supposed to be exporting to the rest of the country. In fact they can easily absorb their entire product without letting one man go to industry or to another province.

INADEQUATE OUTPUT

The Ontario universities can absorb all the people they are training, which is absurd. It means that there simply isn't any place in the country where there is an adequate output of people with advanced training. In Britain we have the opposite situation, by the way. There there is a surplus. They emigrate in droves and it's called the brain drain.

QUESTION: Would you say that if UBC was to concentrate more on graduate studies that it would do so at the expense of, say, undergraduate studies?

DR. HARE: I don't think it ought to. The point is that the undergraduate program is the core of the university, there's no question about it, and I think the universities have an obligation to the public to see to it that the undergraduate places are available.

I think if I had to make this the choice, starve the undergraduate program in order to feed research, I wouldn't do it. On the other hand I think it would be tragic if the universities were driven into that position.

QUESTION: Do you think they are being driven into that position?

DR. HARE: Well, I won't comment on the UBC picture because I haven't looked at the universities of this province. I will say that elsewhere in the country magnificent things are being done. I would like to say how splendidly they are trying to meet this in Ontario. I think the Ontario government's done a fine job in meeting the challenge and it looks as if Quebec's on the move.

The fact is that I have encountered a good many jurisdictions in North America where this problem, the starving of the graduate faculty to feed the undergraduate, is a reality, but they all happen to be American.

QUESTION: You talk about the University of Toronto as being the only Canadian university on the brink of world stature. How would you say the University of Toronto is now, and how would you say the University of British Columbia is in relation to the U. of T.?

DR. HARE: When I made that remark about the University of Toronto I was talking to the other Ontario universities. It was part of the Spinks Commission Report that brought this up and I said it at Carleton last February, it's true.

By the world class, I mean institutions like Harvard, Oxford, London, M.I.T., Berkeley and by that I mean institutions which are magnets. They draw the best people without any effort. In fact they have to beat the competition off and they do this because they have the facilities and they have the atmosphere.

What they've done in Toronto, over the last ten or twenty years, is to build up a really first-class effort in quite a broad range of subjects, and in half a dozen or so, it's the place to go.

HAVE TO WAIT

Now institutions that can do that across a broad range are world institutions and that's what I meant by saying that Toronto was competitive. Now, you have to wait, there's no such thing as an instant graduate school, to quote John Spinks. You just can't create that overnight.

What has happened here at UBC is that in the last five years there has been a most spectacular development in graduate studies, and I think a very imaginative development in graduate studies, and it's on the right path, and if the resources can be found there is not the slightest doubt that there is the scope here for the same kind of stature. It'll take a little time, but there's plenty of ambition.

QUESTION: Is that your ambition, to see UBC in the world league?

DR. HARE: Well, of course. And, incidentally, may I tell you what you're up against? Harvard's operating budget this year is equal to the Ontario subsidy to all their universities. Government support to all Ontario universities put together is equal to the operating budget of one American university—$121 million.

QUESTION: Is that the largest figure in the U.S.?

DR. HARE: Yes, easily. Harvard is the richest university, without doubt, in the world.

QUESTION: Ontario is embarking on regional, community, and technological college programs. I think about eighteen colleges will be open next month. How do you see the regional college concept in relation to universities in this province? Do you think we should have a lot more of them?

DR. HARE: Well, I've read the Macdonald Report. I think it's true to say that it's inescapable that you are going to have to see the creation of a very wide tertiary level of education. More and more leisure means more and more opportunity for tertiary level education.

By tertiary education I mean education that's post-high school. But it's obvious, isn't it, that most of the people who get into that class are probably not university material. One doesn't know what the proportion is. Some people in the States say that a quarter of that age group is university material but, whatever it is, most of them aren't.

TERTIARY LEVEL

Most of them couldn't face up to the rigors of honors physics or economics. But the other three-quarters are owed something. They pay taxes too, and it seems to me that it's inevitable that there be another level of tertiary education. Certainly I think that the Macdonald Report in this respect was remarkably far-sighted.

QUESTION: Dr. Macdonald, it is widely believed, sir, had a frustrating time with Premier Bennett over the matter of budgets for UBC and the other two universities. Last year he asked for $66 million and got $53 million. Would you care to comment on what your chances will be in relation to the government over grants and so forth?

DR HARE: I think until I've talked to Mr. Bennett that it would be quite improper for me to make any comment at all.

QUESTION: Most of the student body, I believe, had a very high regard for Dr. Macdonald as an individual as well as being an efficient head of the university. Do you think that this is something that the head of a university should work towards?

DR. HARE: I think you can exaggerate the role of a university president. He's not God Almighty — he's an enabler. I think it's true to say, however, that the way Canadian universities have evolved, a unique degree of responsibility and obligation is placed on the president, which in other institutions in other countries doesn't fall to the president.

Certainly I think that the crucial role that the president can play in this is to see to it that the students don't get left out of the picture. One of my pet interests has been letting the students be heard. I think that you fellows (the press) do a good deal to see that they are heard, but the ones that are silent ought to be heard from too.

I was talking to the student president of this university this morning and agreeing with him that perhaps the most important single role the president has is to be in pretty continuous touch with the student body and know what they are thinking and to see to it that this is not left out of account.

QUESTION: What's the best way of doing that?

DR. HARE: Well, certainly, the students ought to have their representatives on the Senate and they have, thank God, at UBC. Those representatives are in a particularly difficult position, I think. I am not now talking about the four on the UBC Senate, I'm talking about the student representatives on the Senate in general.

DIFFICULT JOB

The difficulty is that, that if the job is to be done well, if student opinion is to be heard from, they have a terrifically difficult job. They represent a very large constituency, for the most part they are young and immature and they are new to the game, and it's going to be very difficult for them to represent representative student opinion without in fact wrecking their own academic careers.

The greatest difficulty about student affairs, about student participation in university government, is how to do it without wrecking their academic year. Now, quite a few places now give their student presidents sabbatical years. But it isn't enough to say that you are willing to give a sabbatical year to the odd student president.

So I think that's one thing—put them on the Senate. But the other thing, basically, is to encourage in the student body a discussion of genuine academic reforms, genuine academic advance.

QUESTION: Do you think there should be a student on the Board of Governors?

DR. HARE: I don't think there's any absolute answer to that question. There are two students on the Board of Governors of the College I am head of at the moment and the way that Board functions and the way those students operate this makes sense, because it's a college for mature adults. The two students on that Board are both in their late twenties.

What Birkbeck does is to provide second-chance university degrees to anyone who is willing to come while fully employed. What it demonstrates is that these people can compete on equal terms with the full-time students.

I am absolutely certain that this need exists in every Canadian city. In Montreal where it is exceedingly heavy, it's all carried by Sir George Williams University, which I think has done a very splendid job. I think every Canadian city has this need.

QUESTION: Do you think it is necessary to get out and explain the university to the public by talking to the Rotary Club, talking to people generally, making speeches and raising funds as a public service?

DR. HARE: Yes. I certainly do. Universities are dependent on public support. It isn't so much a question of the University claiming the support of the public; I think universities are answerable to the public. They, after all, depend almost entirely on public funds and they fulfill a major public responsibility. Quite obviously the president, and not only the president, but all the deans and all the local professors ought to be undertaking as much as they can to justify the University's work.

Meteorologists Name Dr. Hare Society President

Dr. F. Kenneth Hare, UBC's president-designate, has been elected president of the Royal Meteorological Society, an international learned society with headquarters in London, England. Dr. Hare will hold the presidency of the Society for one year. His term of office began on September 1.

The Society, founded in 1850, has a membership of more than 2,100 professional meteorologists and scientists and interested lay persons.

Until this year, when the Canadian Meteorological Society came into existence, the Society had a Canadian branch of some 400 members.

Some 95 per cent of the Canadian members of the Royal Meteorological Society opted to retain their memberships in the British organization when the Canadian Society was formed. It is estimated that there are about 100 members of the Royal Meteorological Society in Vancouver.

The object of the RMS is the promotion of every aspect of the science of meteorology. In addition to sponsoring free lectures, the Society publishes a quarterly journal devoted to research papers and "Weather," a semi-popular monthly magazine.

On alternate years the Society awards the Symons Memorial Medal for distinguished work in meteorology and the Buchan Prize, which is open to fellows of the Society.

Dr. Hare is well-known in the scientific world for his research in the field of meteorology and climatology, particularly in the Canadian Arctic and the Labrador-Ungava region. He is the author of a widely-used textbook on climatology, "The Restless Atmosphere."

UBC's New President in Brief

Here's a brief biographical sketch of Dr. F. Kenneth Hare, president-designate of UBC.

FREDERICK KENNETH HARE — Bachelor of Science, Doctor of Philosophy, Fellow of the Royal Geographical Society; Master of Birkbeck College, University of London, since August, 1966.

Born Wylye, Wiltshire, England, February 5, 1919; son of Frederick Eli Hare and Irene Smith; married, two sons, Christopher and Robin; one daughter, Elissa Beatrice.

Education: Windsor Grammar School; King's College, University of London (Bachelor of Science with first-class honours in geography) 1939; University of Montreal, Doctor of Philosophy in geography, 1950; Lecturer in geography, University of Manchester, 1940-41.

War service in British Air Ministry, operational forecaster, Meteorological Office, 1941-45.

Assistant and associate professor of geography, McGill University, Montreal, 1945-52; professor of geography and meteorology, McGill, 1952-64; Chairman of Department of Geography and Meteorology, McGill; Dean of the Faculty of Arts and Science, McGill, 1962-64; Warden of Peterson Residence, McGill, 1946-50; professor of geography, King's College, University of London, 1964-66.

Member, National Research Council of Canada, 1962-64; Chairman of the Board, Arctic Institute of North America, 1963; Member, Natural Environmental Research Council, 1965—; Honourary Fellow, American Geographical Society, 1963; Honorary President, Association of American Geographers, 1964; President, Canadian Association of Geographers, 1964; Honorary Doctor of Laws degree, Queens University, 1964.

Author of "The Restless Atmosphere," 1953, a textbook on climatology, and many articles on climatology, meteorology and geography in scientific journals. Recreations — music, photography.

Dr. Hare was a member of a Commission to Study the Development of Graduate Programmes in Ontario Universities. The resulting document, issued in 1966, has become known as the Spinks Report, for Dr. J. W. T. Spinks, President of the University of Saskatchewan, who chaired the Commission.

PLANS for a new 140-foot-high clock tower and 330-bell carillon on the UBC campus are discussed by Ray Griffin, pointing with pen, whose design for the development was chosen from ten submissions by architects associated with the Vancouver firm of Thompson, Berwick and Pratt. Mr. Roy Jessiman, at left, is one of the principals of the firm and was a member of the selection committee. Details below.

TO COST $150,000

Clock, Bell Tower Will Soar Above UBC Library

UBC's Board of Governors has authorized preparation of working drawings for a combined clock and bell tower which will soar 140 feet into the air adjacent to the UBC Library.

The clock tower and an adjacent playing console and terraced seating area will be built and equipped with a personal gift of $150,000 from Dr. Leon J. Ladner, Q.C., who received an honorary doctor of laws degree at UBC's spring congregation June 1, and who retired after nine years as a member of the Board of Governors in 1966.

The clock tower will broadcast music from a 330-bell carillon located in an enclosed console near the clock tower. The development will be built on the lawn area to the west and slightly south of the main entrance to the UBC Library.

USE NATURAL CONTOURS

The natural contours of the landscaping in the area will be used to construct a 100-seat terrace where spectators will be able to watch musicians play an enclosed console controlling the bells.

The 330-bell electro-mechanical carillon will be the largest installation of its type in Canada next to the 671-bell carillon installed by the Sun Life Insurance Co. of Canada at Expo '67.

The clock tower, which will be 65 feet higher than the nearby UBC library, will be equipped with four clock faces, each seven feet in diameter, and will include an interior spiral staircase which will end at an observation room 125 feet above the ground.

UBC's acting president, Dean Walter Gage, said the original plans called for the clock tower to be constructed atop UBC's new administration building, planned for the corner of University Boulevard and Wesbrook Crescent.

Dean Gage said that Mr. Ladner had concurred with a suggestion that it would be appropriate and more in keeping with the thought behind the gift and the University's master plan if the clock tower were centrally located on the campus instead of on the periphery, where the new administration building will be located.

ESTIMATE INCREASED

Originally, it was estimated that the clock tower and carillon would cost $100,000. This estimate, based on preliminary data, was increased to $150,000 as the design developed.

In writing to former president John B. Macdonald to announce his gift in July, 1966, Mr. Ladner expressed the wish that as the clock "rings out the passing of each hour, I hope it will remind the young students that not only does time go fast, but that the hours at our university are very precious and the use of those hours will seriously affect the success, the happiness and the future of their lives."

The clock tower design is the result of a competition held within the firm of Thompson, Berwick and Pratt, architects for the project.

Mr. Ladner and two of the firm's executives chose from ten submissions a design by Ray Griffin, a 29-year-old architect associated with the firm. Mr. Griffin is a UBC graduate who received his bachelor of architecture degree in 1961. He has been with Thompson, Berwick and Pratt for four years.

BELL TONES

The bell tones which spectators will hear are produced by small bronze bars made from the same metal as cast bells. The bars are struck with small metal hammers and the sound amplified a million times and broadcast from 12 speakers atop the clock tower.

The clock can be programmed to strike on the hour, the half hour and quarter hours. University officials said the clock could be silenced at night so as not to disturb surrounding residential areas.

UBC Doctor Gets First Milbank Faculty Award

Dr. George Szasz, assistant professor of preventive medicine at UBC, has become the first Canadian medical educator to be awarded a faculty fellowship by the Milbank Memorial Fund of New York.

The Fellowship, valued at $40,000, is tenable over the next five years, and will allow Dr. Szasz to undertake advanced training in the social sciences as applied to health and medicine.

UBC's dean of medicine, Dr. John F. McCreary, said: "We are particularly pleased that Dr. Szasz has received the Milbank Faculty Fellowship at this time.

"The coordination of the health professions into an integrated unit has as its goal the provision of more effective health services in the patient's home and the physician's office.

"Dr. Szasz, after ten year's experience in general practice, has a wide knowledge of the problems of this type of health care. He is an exceptionally able leader of the group seeking ways to bring about more effective teaching.

SUPPORT INDIVIDUALS

"The Milbank Memorial Fund's program is designed to support individuals who face new and challenging tasks which have not been attempted before.

"The first-ever grant to a Canadian means the board of directors of this highly respected fund are not only impressed with Dr. Szasz as a leader and innovator, but they are also impressed with the need for integration of the health professions."

Dr. Szasz will apply himself to the development of plans for inter-professional teaching of the several health professions which will involve students in medicine, nursing, pharmacy, dentistry, rehabilitation, nutrition science and others.

His recommendations will be considered by an Interprofessional Curriculum Committee which is charged

DR. GEORGE SZASZ

with devising courses of study that will enable students in the health professions to operate as a team and be aware of the problems that each member of the team faces.

Dr. Szasz, who will be known as a "Milbank Faculty Fellow" for the next five years, will use the funds to support various UBC research projects on interprofessional education in the health sciences, and for travel to short courses and meetings which deal with social and preventive medicine.

STUDY LEAVE

He also plans a year of study leave for advanced work in the behavioural sciences and visits to European, Scandinavian and Middle East countries as well as Milbank Memorial Fund projects in South America where training and health care programs are in operation.

The Milbank Memorial Fund annually awards up to ten Faculty Fellowships. This year three were awarded to medical educators in South America, six in the United States, and one in Canada.

The Fund was established and endowed by Elizabeth Milbank Anderson (1850-1921) as a memorial to her father and mother, Jeremiah and Elizabeth Lake Milbank. The Fund was incorporated on April 3, 1905 and was chartered "to improve the physical, mental and moral condition of humanity and generally to advance charitable and benevolent objects."

JAMES W. JAMIESON

School Counselling Expanded

The University of British Columbia will expand its counselling service to B.C. high schools as a result of the appointment of James W. Jamieson, 26, as full time visiting counsellor.

Mr. Jamieson, who will develop a closer liaison between UBC and B.C. high schools, will be a member of the Office of Student Services headed by Mr. A. F. Shirran.

"A student's progress in university often depends on his advance preparation," said Mr. Shirran. "A counselling service enables the prospective student to learn about the university and to discuss on an individual basis many aspects of university life and work in which he or she may be interested. This advance counselling can do much to allay the difficulties encountered by freshmen students."

UBC's existing team of counsellors, which visits schools periodically throughout the year to give aptitude tests, describe the University and counsel individual students, has been available only when the university is not in session and cannot meet the demands of many schools.

Mr. Jamieson will extend the counselling service throughout the whole year and will be able to visit schools in all parts of the province.

A former pupil of John Oliver and King Edward high schools in Vancouver, he obtained bachelor's and master's degrees in education from UBC before teaching for two years at Central Junior Secondary School in Victoria where he was head of the guidance and physical education departments.

He has worked with Victoria Boys' Club, several Vancouver community centres and New Westminster elementary school groups, and was treasurer of the Greater Victoria branch of the Canadian Association of Health, Physical Education and Recreation.

NEW DIMENSIONS IN POLITICAL PROTEST

Academic Freedom Threatened on Campus

(Dr. John B. Macdonald, president of UBC from 1962 until June of this year, received an honorary degree at UBC's spring congregation on June 2. What follows is the major part of Dr. Macdonald's congregation address on academic freedom.)

Perhaps the most important issue affecting the welfare and the survival of universities as we know them is the future of academic freedom in universities and the autonomy of universities. It may sound strange to you that I should suggest that academic freedom and autonomy face dangers at a time when probably more is being said and written in their defence than at any time in North American history.

The problem arises because of misunderstandings of the meaning of academic freedom and the ways in which it differs from some other kinds of freedom —such as civil rights or freedom of speech. Compounding the difficulties arising from misunderstanding are new forms of organized political activity by students and faculty in which the campus is used as a base for attacks on various aspects of society.

These activities sometimes have involved demonstrations, strikes, sit-ins, civil disobedience, violence and demagoguery. They represent new dimensions in political protest. Without wishing to examine their origins closely I suggest that they have arisen partly as a consequence of the often stirring drama of the civil rights movement in the United States and partly as a consequence of new awareness of the political power of organized protest.

DISSENT IS A DUTY

Let me say at the outset that I speak not against dissent. Dissent is a duty in a democracy. Neither do I speak against civil disobedience for a noble cause entered into consciously and thoughtfully and with the courage to accept the consequences. I speak only of kinds of behaviour sometimes indulged in on today's campuses which constitute a threat to academic freedom. Such events have become common in recent years across North America.

We have been fortunate at UBC to have seen relatively little of these difficulties and I hope and pray that in the years ahead UBC may be wise enough not to tolerate the kinds of dangers about which I wish to speak. It is with the hope that a frank discussion of the issues today may help this University to deal wisely with the events of tomorrow that I chose to speak on this subject.

Student rebellion is not new. What is new is the kind of rebellion. In earlier times students rebelled against universities, largely because of their role "in loco parentis." The universities served as convenient surrogate fathers, and in this capacity tended to invite rebellion.

Today's students, when they rebel, are more often involved in a political movement and their demands frequently are in the form of ideological pressures on the universities or the community. In these pressures for student rights, for student participation in university government, for academic freedom for students, for free speech for students, for the right to use the campus as a base for political activities, they are sometimes joined by faculty members. It is in the ideological nature of modern rebellion that some of the danger lies.

The paradox is that a number of actions and attitudes found on today's campuses aimed at protecting or extending academic freedom, instead constitute a threat to academic freedom.

The reasons for granting academic freedom within universities and colleges relate to their special functions in generating ideas — new ideas, revolutionary ideas, unpopular ideas, ideas in conflict with the status quo, ideas disturbing to vested interests, pointless ideas, frightening ideas. Ideas are the lifeblood of society and many of the most important ideas flow from the universities.

It is one of the great purposes of the universities to generate, nourish, test and promulgate new ideas. This crucial function of the university cannot exist where there is fear of consequences. Coercion of teachers is not new. It has existed from time to time in many countries, recently and widely in Nazi Germany and in the Soviet Union.

GIVES WIDEST POSSIBLE FREEDOM

And though we are free from coercion in its extreme forms, the teacher who generates new ideas can still be subject to strong and bitter criticism. He can still be subject to ostracism; he can lose financial support; he or his institution may experience the threat of political sanctions. It is to give the widest possible protection to the individual teacher that the concept of academic freedom has been introduced and has flourished.

Under the umbrella of academic freedom the teacher has a right to speak in his field of competence without fear from government, from society or from his employer. His views may be in direct conflict with the vast majority of his fellow countrymen; his views may challenge those of his professional colleagues; his views may be diametrically opposed to those of the president of his University, the chairman of the board of governors, the University's most generous benefactor, the publisher of the local newspaper. Academic freedom, like other freedoms, is difficult to sustain.

The protection afforded by academic freedom is crucially important. Equally important are appropriate and proper limits on academic freedom and responsibilities that co-exist with academic freedom. In the first place, the protection of academic freedom applies to a man's field of special competence for which he is employed by the University.

It is granted by the University on the basis of the judgment of his professional colleagues and peers, that he is competent, critical and honest. Academic freedom does not give him special rights in fields other than the ones judged by his colleagues to be his area of special competence. On other matters, both on and off campus, he has the same freedom of speech, no more, no less, than any other citizen. That is the judgment of the professors themselves.

IMPORTANT TO STUDENTS

An additional implied restriction on academic freedom is that it is not for students. The right to academic freedom must be earned by study and the acquisition of professional competence. Until that competence has been acquired, in the judgment of one's professional colleagues, to the point where they are prepared to support an appointment to the faculty of the University, academic freedom has no meaning.

This is not to say that academic freedom is not important to students. Indeed, it is crucial to students if they are to have freedom to learn. But academic freedom is vested in the teacher and not the student. As observed by Sidney Hook, "where teachers are deprived of academic freedom, students

DR. JOHN B. MACDONALD

are, ipso facto, deprived of the opportunity to learn." Freedom to teach and freedom to learn are not the same thing.

Many things may interfere with freedom to learn —poverty, discrimination, social environment. Students have a right to expect that such limitations on freedom to learn be removed, but this is a moral or a civil right, not to be confused with academic freedom.

In the same sense, freedom of speech is not the same as academic freedom. Freedom of speech is a civil right, which should be available to everyone in a democracy. Everyone is free to hire a hall and promote nonsense, or to stand on a soap box and claim the earth is flat. It is worth noting, though, that even freedom of speech has its limits. No one has the right to shout fire in a crowded theatre, no one has the right to incite to riot, no one has the right to slander.

Nevertheless the rights of freedom of speech are very broad, and indeed they are much broader in some ways than the rights of academic freedom. A teacher protected by academic freedom has no right to spout what he knows to be nonsense or to speak untruthfully. That is an abuse of the academic freedom which he earned on the basis of competence and truthfulness.

Having stated the case for academic freedom, and having distinguished between academic freedom and some other kinds of freedom, let me now explain why many of today's practices by students and sometimes by faculty can constitute a threat to academic freedom and what a university stands for.

In the first place, an obvious though usually neglected fact is that pressure, strikes, demonstrations, interfere with freedom to teach, and that is an interference with academic freedom. Surely it is axiomatic that academic freedom should protect the teacher against interference with his teaching, his research, his study, his debates, his dialogue. Likewise, though not the same thing, the student's freedom to learn should be protected. There can be no freedom to learn if there is not freedom to teach.

It is regrettable that this elementary fact has sometimes been forgotten when universities have tried to cope with disturbances on or off campus. The basic consideration when universities must decide whether or not to apply disciplinary measures is not whether or not a crime has been committed, or whether or not civil authorities are laying charges.

The basic consideration is whether the questionable activity interferes with the educational goals and the educational philosophy of the university. If universities will ask and answer that question honestly, they will find they can deal with many problems on an ad hoc basis more wisely than by relying on a set of rules and regulations.

The second reason that many of today's incidents are a threat to academic freedom is that they depend on eristic controversy—argument aimed at victory rather than truth. Emotions are brought to the fore. Persons become objects of attack. Character assassination is used to win arguments. Arrogance and rigidity replace humility and ability to be persuaded. What a far cry such behaviour is from the kind of behaviour protected by academic freedom.

ACADEMIC WAY SEEKS TRUTH

The academic way seeks the truth; the academic way has respect for opposing views; the academic way is indifferent to the winning or losing of an argument; the academic way is based on intellect, not emotion.

The final point I wish to make relates to the reason why today's rebellions are particularly alarming. The secretary of the American Association of University Professors recently commented, "It is not only students who are taking unprecedented steps to gain recognition and concurrence for demands that often leave small ground for the kind of consultation and debate that academic people are accustomed to, but also some faculty groups are resorting to pressure tactics. Threatened strikes or boycotts, publicity before demands have been examined or answered, refusal to use established faculty agencies, appeals to students for sympathetic support, and related efforts which often bring issues to the state of immediate crisis."

These are forms of political behaviour, and political activities of this kind are occurring not only within the universities but in such a way as to use the university as a fortress from which to launch organized attacks on one or other element of society in the name of reform. It is not the individual acts of university members exercising their rights as individual citizens which concerns me; it is organized political activity within the university where the target is outside the university.

Those who undertake such activities tend to do so with the expectation that they are under the protective umbrella of academic freedom. How naive! In the first place, academic freedom, as we have seen, has nothing to do with such activities. In the second place, it surely must be obvious that universities cannot have things both ways.

Where then will academic freedom be? What right has the academic to expect that he can launch organized attacks on various aspects of our society without society responding by interfering with the autonomy of the universities and by laying down ground rules through government edict on what will be allowed and what will not be allowed within our universities?

That is where the great danger lies. Students, as individuals, and faculty, as individuals, have a right and a responsibility to follow the dictates of their conscience in pressing for reform, but let them not use the university as an instrument for their purposes.

PURPOSE OF UNIVERSITY

The purpose of the university is to formulate ideas, to test them, to criticize them, to accept them, to reject them. The University by definition cannot become the curator of any particular viewpoint, or the defender of a faith, the guardian of an ideology.

Some of the ideas generated by the university may be adopted by society but the university has no right to try to force such adoption. Indeed the very ideas first suggested within the university and later adopted by society may become the victim of future criticism from the university as new ideas emerge to replace old ones in a never-ending process.

The day that the university forgets this crucial responsibility and allows itself to become a spokesman for particular political or social platforms, it will invite and deserve outside interference with its own autonomy, and that day will bring the end of academic freedom.

UBC REPORTS

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PROGRAM COORDINATOR NAMED

Retardation Institute Announced for UBC

A five-year program costing $1,400,000 for establishment of a large-scale teaching and research program on mental retardation has been announced by the University of B.C. and the Association for Retarded Children of B.C.

The development, to be known as the British Columbia Mental Retardation Institute, will involve the appointment of "specialists in mental retardation" at all three public universities in B.C. and construction of a headquarters building on the UBC campus.

COORDINATOR APPOINTED

Announcement of the establishment of the institute was made by UBC's acting president, Dean Walter Gage, and Mr. George W. Atherton, president of the Association for Retarded Children of B.C.

Dean Gage said that Dr. Charlotte David, associate professor in the UBC faculties of education and medicine, had been named coordinator of the institute program.

Dr. David described the development as "one of the most significant ever proposed in Canada for dealing with mental retardation problems."

She said the basic concept of the project was to give professionals of every appropriate discipline — teachers, doctors, social workers, nurses, recreation specialists and others — sufficient training and exposure to all aspects of mental retardation to enable them to give adequate service to the retarded.

She said the main emphasis of the program would be placed on appointing "specialists in mental retardation" to the staffs of UBC, Simon Fraser University and the University of Victoria.

"Their task," she said, "within their own departments and faculties, will be to launch a research and teaching program to equip students to deal with the problems of the mentally retarded when they become professionals working in the field."

NAME SPECIALISTS

She said the specialists would be appointed to such departments and faculties as medicine, psychology, nursing, education, social work, genetics, neurology, and physical education and recreation.

"We are also planning an extensive continuing education program to keep professionals now working in the field up-to-date on the latest research developments, and to provide training for those who don't have it at present," Dr. David said.

OVERCOME SHORTAGE

One of the aims of the program is to overcome a widespread shortage of personnel in the field of mental retardation in B.C. and Canada.

"An estimated three out of every hundred children born in Canada are mentally retarded to some extent," Dr. David said. "The only way in which the shortage of experts can be overcome is through expansion of educational facilities to make personnel familiar with all aspects of the problem."

Mr. Atherton said the concept of projects such as the B.C. Mental Retardation Institute grew out of a meeting of scientists and professionals sponsored by the Canadian Association for Retarded Children, which was held in Toronto in 1963.

The following year, the B.C. association hosted a meeting at Harrison Hot Springs of university and government personnel which pointed up the necessity for training personnel for work in the field. This led, he said, to the idea of establishment of the institute on the UBC campus.

He said the B.C. branch of the association was committed to raising $500,000 as their share of a $5,000,000 national campaign to support a total of 14 mental retardation projects in various parts of Canada. These projects vary in their basic purpose, but each focuses on some aspect of increased knowledge and service for the retarded.

DR. CHARLOTTE DAVID

He said funds sufficient to guarantee the success of the B.C. project would be appropriated from the national campaign fund.

At this time, he said, it was not possible to quote a dollar figure for this support, since the federal and provincial governments would also be providing funds for the operation of the institute.

"The provincial government," he said, "has already given assurances to us that they will match a federal contribution up to $700,000.

FINANCIAL GAP

"Any financial gap which exists after the federal and provincial governments have made their contributions will be met out of the $5,000,000 national campaign fund."

The $1,400,000 will be spent over a five-year period as follows:

The bulk of the funds — $850,000 — will be used to support part- or full-time appointments in designated departments at B.C.'s three public universities.

Approximately $300,000 will be used to construct a building to house the administrative offices and to provide services and conference rooms for the institute on the UBC campus.

The remainder — approximately $250,000 — will be used for operating expenses and salaries of personnel directly attached to the institute.

The institute will have two administrative bodies:

An inter-departmental committee composed of representatives of university departments that have appointed a "specialist in mental retardation." The committee will review programs to avoid duplication and propose joint research studies.

ADVISORY COUNCIL

An advisory council, composed of two members each from the B.C. government, the Honorary Board of Governors of the CARC, and the Association for Retarded Children of B.C., and one member each from UBC, Simon Fraser and the University of Victoria.

The advisory council will have over-all responsibility for the institute, approve applications for research funds, and give general direction to the entire project.

Dr. David, who will act as coordinator for the project, is a well-known educational psychologist and coordinator of UBC's Research Unit for Exceptional Children.

She is currently president of the B.C. Psychological Association and a former chairman of the professional advisory committee of the Association for Retarded Children of B.C.

She is a graduate of Texas Women's College, where she received her bachelor's degree in 1942 and Columbia University Teachers College, where she was awarded her master of arts degree in 1943. She received her doctor of philosophy degree from the University of Portland in 1960.

LECTURED IN U.S.

Before joining the UBC faculty in 1962, she was a lecturer in psychology at the University of Portland and a staff psychologist at Morningside Hospital in Portland. During the 1940s and 1950s she was associated with various community recreation programs in the State of New York.

Zoologist Honored In East

Professor William S. Hoar, head of UBC's zoology department, was one of five leading North American fisheries experts who received honorary degrees in Newfoundland recently.

Dr. Hoar was awarded the honorary degree of doctor of science at the special convocation of the Memorial University of Newfoundland on the occasion of the official opening of a $1.6 million marine sciences laboratory at Logy Bay, Newfoundland.

The cost of constructing the laboratory was shared equally by Canada's National Research Council and Memorial University

Dr. Hoar's degree citation read, in part, as follows:

"Born and bred in New Brunswick, William Stewart Hoar studied and taught in his native province, in Ontario and at Boston before migrating in 1945 to British Columbia.

"There, as professor of zoology and head of the department, he has made peculiarly his own the study of the histology, embryology and behavior of salmon.

"His contributions in this field, together with those to general and comparative physiology, marshalled most recently in a book . . . , display the crispness, lucidity, and learning which have made him a fellow of the Royal Society of Canada, and winner of the Society's Flavelle Medal."

The convocation was held during meetings of the American Society of Limnologists (specialists in freshwater biology) and Oceanographers, attended by more than 1,000 scientists.

CAMPUS FOOD SERVICES

Single UBC Ancillary Service Breaks Even

Only one of UBC's five ancillary enterprises—campus food services—broke even during the last fiscal year.

Three of the other four services—residences, health service hospital and University research farm—incurred deficits which were met with appropriations from UBC's general revenues.

UBC's bookstore and post office also showed a deficit which resulted from construction of additional facilities. The $28,103 spent on this development was made up of a $10,471 surplus from the previous year's operations plus a $17,632 appropriation from bookstore operations in 1966-67.

UBC's traffic and security patrol costs are not included in the 1966-67 statement because of new fiscal arrangements between the federal and provincial governments requiring standard classification of accounting practices.

This necessitates viewing the costs of traffic and security as part of physical plant maintenance and service costs. Physical plant costs are shown in the fund transaction table on the page opposite.

Below is a table showing the financial operations of UBC's ancillary enterprises for the year ending March 31, 1967.

Campus Food Services

Revenue		$ 776,566
Food Costs	$ 345,804	
Labour Costs	284,911	
Other Operating Costs	88,399	
Repayment of Advance for Construction (Ponderosa Cafeteria)	57,452	776,566
		$ —

Residence Operations

Revenue		$2,094,357
Food Costs	$ 573,574	
Labour Costs (Residences $367,128; Food $385,460)	752,588	
Other Operating Costs (Residences $316,896; Food $69,540)	386,436	
Development of Facilities and Grounds	22,892	
Debt Repayment (on borrowing for construction)	362,149	2,097,639
Net Profit (loss)		($ 3,282)

University Health Service Hospital

Revenue		$ 114,741
Food Costs	$ 7,702	
Labour Costs	94,071	
Other Operating Costs	20,630	122,403
Net Profit (loss)		($ 7,662)

Bookstore and Post Office

Gross Revenue		$1,800,901
Less Rebates to Students		50,000
		$1,750,901
Cost of Books and Supplies	$1,559,646	
Labour Costs	151,306	
Other Operating Costs	22,317	
Development of Facilities (Bookstore Addition)	28,103	1,761,372
Net Profit (loss)		($ 10,471)

University Research Farm

Revenue		$ 84,873
Feed Costs	$ 38,102	
Labour Costs	36,523	
Other Operating Costs	16,542	91,167
Net Profit (loss)		($ 6,294)

Total Ancillary Enterprises

Revenue		$4,821,438
Expenditure	$4,429,546	
Repayment of Debt and Advances for Buildings	429,601	4,849,147
Excess of Expenditure over Revenue		$ 27,709
Deduct Bookstore and Post Office Appropriated Surplus from 1965-66		10,471
Net cost to University General Revenues		$ 17,238

UBC's CONSOLIDATED STATEMENT OF FUND TRANSACTIONS

For the Year Ended March 31, 1967

	OPERATING FUNDS			Endowment and Student Loan Funds	Capital Funds	Total of all Funds
INCOME	General Purposes	Specific Purposes	Total			
Operating and Capital Grants—Canada	$ 6,913,309	$ —	$ 6,913,309	$ —	$ 360,075	$ 7,273,384
Health Sciences Centre	—	—	—	—	2,234,501	2,234,501
—British Columbia	13,920,000	—	13,920,000	—	3,000,000	16,920,000
Health Sciences Centre	—	—	—	—	724,079	724,079
Student Fees	8,646,330	—	8,646,330	—	—	8,646,330
Services	1,045,569	249,813	1,295,382	—	—	1,295,382
Endowment Income	—	235,405	235,405	—	—	235,405
Sponsored or Assisted Research	—	7,455,972	7,455,972	—	—	7,455,972
Gifts, Grants and Bequests	—	2,712,105	2,712,105	5,394,770	2,326,454	10,433,329
Miscellaneous	150,313	60,724	211,037	—	50,360	261,397
Total Income	$30,675,521	$10,714,019	$41,389,540	$ 5,394,770	$ 8,695,469	$55,479,779
EXPENDITURE						
Academic	$21,708,416	$ 1,058,038	$22,766,454	—	—	$22,766,454
Library	2,077,931	1,191,310	3,269,241	—	—	3,269,241
Sponsored or Assisted Research	—	6,761,440	6,761,440	—	—	6,761,440
Administration	1,264,240	15,325	1,279,565	—	11,098	1,290,663
Student Services	437,949	145,371	583,320	—	—	583,320
Plant Maintenance	3,846,310	11,572	3,857,882	—	—	3,857,882
Scholarships and Bursaries	593,442	688,116	1,281,558	—	—	1,281,558
General Expenses	136,376	12,661	149,037	650	10,302	159,989
Land, Buildings and Equipment	—	—	—	—	9,342,064	9,342,064
	$30,064,664	$ 9,883,833	$39,948,497	$ 650	$ 9,363,464	$49,312,611
Ancillary Enterprises (Net)	27,709	—	27,709	—	—	27,709
Total Expenditure	$30,092,373	$ 9,883,833	$39,976,206	$ 650	$ 9,363,464	$49,340,320
Excess of Income over Expenditure for the year ended March 31, 1967	$ 583,148	—	$ 583,148	—	—	$ 583,148
Net Additions (Decrease) to Fund Balances	—	830,186	830,186	5,394,120	(667,995)	5,556,311
Reclassification of Funds	—	210,610	210,610	(210,610)	—	—
Fund Balances at April 1, 1966	92,562	3,077,658	3,170,220	8,810,075	1,799,859	13,780,154
Fund Balances at March 31, 1967 as per Statement of Financial Condition	$ 675,710	$ 4,118,454	$ 4,794,164	$13,993,585	$ 1,131,864	$19,919,613

UBC'S FINANCIAL STATEMENTS SHOW:

Nearly $2 Million Spent 'Keeping House'

The cost of "keeping house" at the University of B.C. during the last fiscal year totalled nearly $2,000,000.

The University's household expenses for heat, light, telephones, food, laundry and water are detailed in UBC's financial statements for the fiscal year April 1, 1966 to March 31, 1967. (Copies of the statements are available at UBC's bookstore for $3 plus tax.)

PUBLISHED ANNUALLY

The statements, which also include details of salaries paid to faculty members, employed staff and student assistants as well as payments to domestic and foreign vendors, are published annually in accordance with the B.C. government's Public Bodies Financial Information Act.

UBC's largest single household expense was $665,038.17 paid to B.C. Hydro and Power Authority for electrical power and gas for heat and light.

Add to this payments of $227,346.57 to the B.C. Telephone Co. for services and the total comes to more than $892,000 or about 40 per cent of the total "household" bill.

UBC's faculty, staff and students also have sizeable appetites. They consumed food which cost the University about $750,000.

Meat purchases totalling $278,588.15 were the largest single food item, closely followed by staples and fresh produce valued at more than $213,000.

Dairy products were another big favorite on campus, costing UBC nearly $138,000 and the bill for bread and dinner rolls amounted to $63,166.83.

Minor items by comparison were the cost of eggs — $11,113.99 — and fish and other sea food totalling $38,000.

The bill for water services for the entire UBC campus was about $90,000 and laundry services amounted to nearly $46,000.

LIVESTOCK BILL

And just as most ordinary households have a pet or two to feed, so UBC had to provide for its animals and livestock on the campus or at the research farm at Oyster River on Vancouver Island.

The bill for their food came to more than $120,000.

UBC's consolidated statement of fund transactions shows a gross income of $55,470,779 and gross expenditures of $49,340,320. (See table above.)

UBC's Bursar William White said the difference between income and expenditure — $6,139,459 — is almost entirely the result of increases in UBC's endowment funds from the estate of the late Dorothy J. Killam.

"These capital sums," Mr. White said, "are not available for use by the University to meet immediate expenses. They are invested by the University and the annual income is used in ways specified by the donors."

The statement also shows UBC had an excess of income over expenditure amounting to $675,710. The bulk of these funds — $583,148 — resulted from the federal government which makes grants to Canadian universities on the basis of provincial population.

OVERCOME SHORTFALL

Mr. White said these funds would be used during the 1967-68 fiscal year to make up for a shortfall in provincial operating grants.

UBC's largest single expense was for academic services, and included more than $16,000,000 in wages and salaries paid to faculty members and administrative personnel.

The second largest expenditure — $9,363,464 — was for construction of new buildings and facilities on the campus.

Ancillary enterprises at the University operated at a loss of $27,709 during the fiscal year, the statement shows. (See table on page opposite).

Mr. White said that most of these enterprises — food services, bookstore, residences and parking — operated on a self-sustaining basis. General revenue contributions were made to the operations of the University hospital and the Oyster River research farm on Vancouver Island.

Scholarships and bursaries awarded to UBC students amounted to $1,281,558, the statement shows. In addition, student assistants, paid by the University for teaching services and laboratory supervision, received $1,494,595.91. Grants in aid to graduate students totalled $734,365.

PART-TIME WORK

Mr. White said many students also find part-time work on the campus in physical plant and food services.

"Taken together," Mr. White said, "it is estimated that students on the average get back from the University about half of the $8,646,330 paid annually in tuition fees."

IN CIVIL ENGINEERING

Experts Study Water Problems

The department of civil engineering of the University of B.C. is embarking on a program of education and research in the wise management of one of British Columbia's most abundant and most valuable natural resources, water.

A team of experts in various fields will be established in the department to undertake studies of specific regions in the province where water problems have arisen or may arise in the future.

PROBLEM RANGE

The problems to be studied may range from flood control to the supply of water for agricultural irrigation and will include social and economic as well as physical and technological aspects of water management.

In addition, the new program will serve as a training ground for future specialists in water management, who are in great demand by government agencies.

The program will be financed under an agreement between the University and the Water Resources Service of the B.C. Department of Lands, Forests and Water Resources. The initial agreement is for a three-year period and anticipates a yearly expenditure of $35,000.

In addition, the Water Resources Services will support a few research studies on water resources by graduate students in the civil engineering department at an estimated cost of $3,000 per student.

The government will benefit from the program by being supplied with sound data as a basis for its comprehensive planning of water use and by having available an enlarged pool of trained specialists in water management.

"This program will be a distinct advantage to our Water Resources Service," said A. F. Paget, deputy minister of water resources. "We hope it will encourage more people to enter this important and specialized field."

Dr. W. D. Liam Finn, head of the department of civil engineering, will head the new program. He plans an inter-disciplinary approach which will draw on the talents of faculty members in such other fields as economics, geography and agriculture, as well as those of his own department.

FUTURE WATER NEEDS

Among the problems that will engage Dr. Finn's group will be an assessment of future water needs in the dry interior of the province, and the social, economic and engineering questions involved in flood control, pollution control, and the conveyance of water from areas of surplus to deficient areas.

Dr. Finn's study group will begin work on initial projects during his current absence from Canada. Dr. Finn left recently for a six-month visit to the Soviet Union as a visiting scientist to the USSR Academy of Science, under an exchange agreement between the academy and the National Research Council of Canada.

FROM PAGE ONE

Study Will Aid Planners To Meet Health Demands

of Medicine. Dr. Donald O. Anderson, head of the department, will be project director.

Acting as a steering committee for the project will be the B.C. Health Resources Council, a grouping of organizations representing the health professions, the provincial government, and the UBC faculties and schools concerned with education of health workers.

This will be perhaps the most ambitious project of its kind ever undertaken in Canada. The information it provides should be of great importance to governmental authorities and health planners as they seek to meet the increasing demands of the public for health care.

The UBC study will be an in-depth investigation of the availability and utilization of all health resources in two typical Fraser Valley communities, code-named Jersey (Langley) and Fraser (Mission).

In general, the study will seek to answer four major questions:

1. What health personnel and facilities exist in these two communities?
2. How are they now being used?
3. How could they be used to better advantage?
4. What additional facilities and manpower (or womanpower) are needed?

The study will be divided into two parts. One will be a complete inventory of health resources in the two communities. The other will consist of exhaustive interviews, covering the whole field of personal health care, with 1,000 families in each community.

Heading the separate studies will be two senior research associates in Dr. Anderson's department: Dr. Hart Scarrow for the inventory of resources, and Miss Brenda Morrison for the household survey.

STUDENTS TAKE PART

The resources study will be conducted from May 1 to Sept. 1, 1968, by a group of UBC pharmacy, dental and medical students.

They will make a detailed census of all health workers and facilities in the area, and by means of questionnaires, will attempt to establish the total number of man-hours available for personal health care, the time given to each patient, and the length of time patients must wait for appointments with doctors and dentists.

The household survey will be conducted by two teams, each composed of 12 interviewers and supervisors. Each team will interview members of 250 families in each of four six-week periods spread over the 12 months beginning May 1, 1968. Each interview will take about an hour.

The interviewers will use questionnaires carefully designed to produce a maximum amount of information about the respondent's state of health, his knowledge of disease and the resources available to cope with it, his relations with doctors, nurses and other health workers, his use of prescribed and non-prescribed drugs, and the extent to which his health expenses are covered by insurance or welfare payments.

In addition the respondents will be sounded for indications of their perception of health and illness, their attitudes toward doctors, and their expectations of health services.

All information given by the interview subjects will be kept confidential.

CENTRAL FACILITY

Data from the survey will be sent, in coded form, to Johns Hopkins University, Baltimore, Md., which will act as the central processing facility for all data collected under the International Collaborative Study of Medical Care Utilization.

(Other ICS-MCU studies are being conducted by the Universities of Alberta and Saskatchewan and by other agencies in the U.S.A., Britain, Finland, Yugoslavia, Chile and Poland.)

Organizations comprising the British Columbia Health Resources Council, which has fostered the B.C. study are:

B.C. Dental Association; B.C. Medical Association; College of Physicians and Surgeons of B.C.; Pharmaceutical Association of the Province of B.C.; Registered Nurses' Association of B.C.; Department of Health Services and Hospital Insurance, Province of B.C.; University of B.C., Faculties of Dentistry, Medicine and Pharmacy; and the Schools of Nursing of B.C.

FROM PAGE ONE

Gammacell

tion strikes water and various other liquids and solids.

The chief advantage of the Gammacell is its compactness. The lead column containing the radiation source is only five feet high and sits on a base about 42 inches square. As a result, there is no need to install costly lead shielding to protect scientists carrying out experiments.

The source of radiation within the Gammacell is an isotope of the element cobalt, which gives off high energy gamma rays.

Basically, the Gammacell is a column of lead with a central core removed. At the bottom of the lead column is a circular container lined with 48 steel rods containing slugs of Cobalt 60, the source of radiation.

Filling the core above the circular container is a cylinder containing an irradiation chamber which can be raised and lowered automatically.

Scientists wishing to irradiate a sample simply raise the irradiation chamber to the top of column, insert the sample, and lower it into the cylinder where it is bombarded by the gamma rays.

Dr. David Walker, associate professor of chemistry and one of the scientists who will use the machine, said the samples which will be irradiated in the chamber will not themselves become radioactive and can be handled safely after removal.

Gamma rays, he explained, are electromagnetic waves of the same type as radio and light waves, but of a much higher photon energy.

When gamma rays strike the sample they interact with electrons — negatively charged particles — which revolve in orbits around the nucleus of atoms making up the material.

When these interactions take place, a number of things can happen. Sometimes electrons are knocked out of their orbits and lost, sometimes they are captured by other atoms, and often the electron's energy level is altered as a result of irradiation.

The net result of altering the electron structure of the atoms is that the properties of the sample are altered, sometimes radically.

Dr. Walker said his research is not aimed at any practical application but rather at elucidating the processes by which high energy radiations induce chemical and physical changes.

Conceivably his experimental results could be applied to industrial processes such as the manufacture of chemicals, the preservation of food and the alteration of plastics as well as the treatment of cancer.

The $20,000 Gammacell was purchased with a $12,000 grant from Canada's National Research Council and $8,000 from department of chemistry funds.

21 Lectures Planned

The Vancouver Institute will open its 51st annual lecture series at the University of British Columbia October 14.

Leading off the 1967-68 series in UBC's Buchanan building at 8:15 p.m. will be Burnaby's Reeve Allan Emmott, who will speak on "Metro — the future of Greater Vancouver."

A brochure giving details of all lectures can be obtained by writing to the Information Office, UBC.

PROF. DENNIS H. CHITTY

Foundation Supports Zoologist

A UBC zoologist who believes liberal arts students should be encouraged to take courses in science has been invited to teach in the United States next year.

He is Dr. Dennis H. Chitty, professor of zoology, who has been awarded a $15,000 Senior Foreign Fellowship by the U.S. National Science Foundation.

GRANTED LEAVE

Dr. Chitty is one of 50-60 scientists outside the U.S. who will receive such awards for the 1968-69 academic year.

The National Science Foundation says the awards are designed to bring to the U.S. "foreign scientists whose formal training, teaching and research experience are of sufficient distinction to enable them to make significant contributions to science education and scientific research at American universities."

Dr. Chitty has been granted leave of absence from UBC beginning next August to go to Smith College in Northampton, Massachusetts, where a new $8,500,000 science centre has just been completed.

At Smith, one of the world's leading liberal arts colleges for women, Dr. Chitty will hold a graduate seminar in his research specialty, population ecology, and give an undergraduate course designed to bring together students in the liberal arts and those in the sciences.

Dr. Chitty said: "Even those students who are not planning a career in science need to know something about its powers and limitations.

OFTEN UNSUITABLE

"For students in the humanities first year university science courses are often unsuitable because they are designed to provide the technical information needed by students planning a career in science.

"Yet without this technical knowledge no arts student can get anything out of advanced level courses in science; and this is where the real excitement is.

"Over the years I have tried to develop at UBC a fourth-year course in the principles and history of biology that will have something in it for the future specialists in science as well as for students in other faculties, particularly in the faculty of arts.

"Smith has a new science centre but is primarily a liberal arts college and I have been invited there to give this course, which is designed to tackle the difficult problem of communication between the humanities and the sciences."

Colloquium Scrutinizes Teaching

The University of B.C.'s faculty and students will examine University teaching at a series of four meetings during October.

Entitled The Colloquium on University Education, the sessions are designed to provide a forum for students and faculty to discuss education at UBC.

SELF-EXAMINATION

Dr. Richard Roydhouse, of UBC's dental faculty, and one of the organizers of the colloquium, said the series was designed as a self-examination of teaching at UBC by both faculty and students. He emphasized that the sessions were not designed "to teach teachers how to teach."

The first session on October 4 will centre around a 20-minute videotape of a student discussion of the University followed by a review of the presentation by students and faculty.

The audience will then break up into small groups for discussion, and then report back to the meeting on the significance of previous comments and their own views on good teaching at UBC.

The second session of the colloquium on October 11 will hear two debates dealing with influences on University education.

Measuring teaching ability will be discussed at the October 18 session. Two speakers and a panel will discuss the evaluation system in use by the administration at the University of Washington and that used by UBC students for teaching evaluation.

SUGGEST IMPROVEMENTS

The final session on October 25 is entitled "Further guideposts for University education." The audience will be asked to suggest effective teaching conditions and desirable improvements at UBC.

"Those attending all sessions," Dr. Roydhouse said, "will see how TV could be used in the classroom, the effects of a debate on an audience and a variety of ways of presenting information."

All colloquium sessions will be held in the auditorium of UBC's education building beginning at 7:30 p.m.

Residence Complex Renamed

The Lower Mall student residence complex has been renamed Place Vanier in honor of the late Governor-General of Canada, Gen. Georges P. Vanier.

Dean Walter Gage, acting president of the university, said the use of the Vanier name was proposed by the Lower Mall Residences Association and the university was happy to concur.

Mme. Vanier has approved the use of the name and has expressed her deep appreciation of this tribute to her late husband.

Place Vanier now consists of eight residential buildings, each of which will continue to bear its distinctive designation, and the Gordon Shrum Common Block. A contract has been awarded for construction of two new towers which will bring the total capacity of Place Vanier to 911 students.

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