

FIRST EVER ATTEMPTED IN CANADA

Medical Educators Plan Unique Program

Plans to develop a unique, totally-integrated continuing medical education program in a B.C. community have been announced by UBC officials.

Dr. Donald H. Williams, head of UBC's department of continuing medical education, said the pilot program will probably be the first ever attempted in North America and certainly the first in Canada.

NEW ASSOCIATE DIRECTOR

The design of the program will be supervised by Dr. H. Ormond Murphy, a specialist in internal medicine currently practising in Vancouver. He will join the staff of UBC as associate director of the continuing medical education department on July 1.

Dr. Williams said the pilot program in the chosen community will involve all members of the health team, including physicians, dentists, nurses, pharmacists, hospital administrators, social workers and the personnel of provincial health units.

"The program," he said, "will be designed to reflect the total health care program which is now under development on the UBC campus in the Health Sciences Centre, where all members of the health team will be trained together to provide better patient care."

"The health team concept reflects the fact that the physician alone can no longer be responsible for

all aspects of health services and must be a member of a group devoted to an integrated pattern of care."

UNDERTAKE CAREFUL PLANNING

He said Dr. Murphy would undertake careful planning of the program in the coming year in conjunction with other members of the health professions at UBC.

"The kind of community we will select to initiate the program will be relatively compact and contain

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UBC Reports

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STUDENT SENATORS APPROVED

Aggie Dean Named

A basic biological scientist rather than an agriculturalist has been appointed Dean of the Faculty of Agriculture at the University of B.C.

He is Dr. Michael Shaw, 43, of Saskatoon, currently professor and head of the department of biology at the University of Saskatchewan.

His appointment indicates a shift in direction of the development of the 50-year-old Faculty of Agriculture at UBC, which in future is expected to place even greater emphasis on the use of basic science to study the problems that arise in agricultural practice.

SHARE NEW BUILDING

Dr. Shaw's appointment will place him in partnership with Dr. Joseph A. Gardner, who was appointed Dean of Forestry two years ago. The two faculties, forestry and agriculture, will share a new \$4.5 million building on the UBC campus, to be opened June 14.

Dr. Shaw will succeed Dr. Blythe Eagles, who retires as Dean of Agriculture June 30.

Dr. Shaw was born in Barbados and has been a Canadian citizen since 1955. He took his B.Sc. with first-class honors in botany and his M.Sc. and Ph.D. in botany and plant pathology at McGill University in Montreal. In 1949-50 he was a National Research Council post-graduate Fellow at the Botany School of Cambridge University, England.

He returned to Canada in 1950 to become Associate Professor of biology (plant physiology) at the University of Saskatchewan. In 1954 he was appointed Professor of Biology and in 1961 was named head of the department.

RESEARCH INTEREST

Dr. Shaw's principal research interest for the last 14 years has been the physiology and biochemistry of the fungi known as rusts which infect cereal crops. His research group in Saskatoon is now studying cellular changes in infected plants, using an electron microscope.

In commenting on Dean Shaw's appointment, UBC President John B. Macdonald said:

"In seeking a dean to lead the Faculty of Agriculture in the years ahead, we have been keenly aware of the changing role of agricultural education in universities.

"Work in this area must become

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See AGGIE DEAN*



WINNERS of two of UBC's top graduating awards are shown discussing three-dimensional mathematical models. Seated is Alan Smith, 20, honors mathematics, winner of the University Medal for topping the bachelor of science class. Standing is David Sharp, 21, honors physics and philosophy, winner of the Governor-General's Medal as head of the bachelor of arts class. Both students are graduates of Lord Byng secondary school in Vancouver and plan to go on to graduate work for their Ph.D.'s, Smith at Stanford in mathematics and Sharp at Princeton, where he will study the history and philosophy of science. Photo by B. C. Jennings.

Record Graduating Class At Spring Congregation

A record graduating class of 3,308 students will receive degrees at the University of B.C.'s Spring Congregation May 31 and June 1 and 2.

UBC's chancellor, Mr. John M. Buchanan, will confer the degrees at ceremonies beginning at 2:15 p.m. each day in the War Memorial Gymnasium.

The 1967 graduating class includes 2,401 students who completed degree requirements during the last winter session plus 907 students whose degrees were approved last fall by the Senate.

UBC no longer holds a Fall Congregation for the awarding of degrees. Students who completed requirements last year are eligible to participate in the 1967 Congregation.

Bachelor of arts students are the largest single group in this year's graduating class, totalling 829 students. Bachelor of education degree students — 552 — are the second largest group, followed by bachelor of science students totalling 457.

A highlight of the Spring Congregation on June 2 will be the awarding of an honorary doctor of science degree to Dr. John B. Macdonald, whose resignation as president of UBC becomes effective June 30.

Here are the heads of UBC's 1967 graduating classes:

The Governor-General's Medal (Head of the Graduating Classes in

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See CLASS LEADERS*

The Senate of the University of B.C. has decided to open its membership to students.

The Senate, which is the highest academic body in the University, voted at its meeting Wednesday, May 24, to allow four new Senators to be elected from the student body.

This will raise the Senate membership to 78.

The decision was made on the advice of a 12-man committee which has been studying the role and organization of the Senate.

ONE GRADUATE STUDENT

Under the plan adopted May 24, one of the new Senators will be a graduate student elected by his fellow-students in the Faculty of Graduate Studies. The other three will be elected from the entire student body.

First elections are expected to be held next autumn.

Commenting on the Senate's action, Dr. John B. Macdonald, president of UBC, said:

"The University has been making a number of efforts to seek the opinions and advice of students in respect to matters which concern them and their education. The decision of the Senate is yet another move in that direction.

"As a result of this decision to invite student representation on the Senate, the students will have an opportunity to express views on educational matters and other aspects of the Senate's work directly to the supreme academic legislative body of the University."

The advisability of greater student participation in University government has been widely discussed in recent years and has been studied by a number of campus committees and other bodies.

These committees have generally agreed that student representation on the Senate would be beneficial, although there has been divergence among them as to the number of student Senators and their manner of election.

SENATE GROUND RULES

Under the ground rules now established by the Senate, any student candidate for the Senate would have to have attained at least second-class standing in a full program of studies at UBC in the winter session preceding his election.

To retain his seat, he would have to continue to carry a full academic load in the winter session of the year for which he is elected.

These conditions were requested by the Alma Mater Society, which represents the student body.

The election of student Senators would be conducted by the Alma Mater Society, but interpretation of eligibility rules would rest with the Senate.

No legislative amendment is neces-

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See STUDENT SENATORS*

TO OPERATE IN VGH EMERGENCY WARD

\$10,000 Gift Supports Shock Study Unit

Research aimed at better management and treatment of patients suffering from shock will begin soon at the Vancouver General Hospital by a team of University of B.C. doctors.

The project, supported by a \$10,000 Centennial equipment grant from the Trans Mountain Oil Pipe Line Co., is one of a number of studies currently underway in the Trauma Research Unit, which this year marks its 10th year of operation as part of the de-

partment of surgery in UBC's Faculty of Medicine.

Dr. Frank P. Patterson, head of orthopaedic surgery in UBC's medical faculty and director of Trauma Research Unit, said the shock study team will operate in the emergency ward of the Vancouver General Hospital.

He said the Trans Mountain Oil Pipe Line grant would enable the Trauma Unit to purchase electronic equipment which would monitor the

condition of patients suffering from shock.

"Constant monitoring of injured persons suffering from shock will enable us to do two things," he said.

"First, we will be able to provide information on the patient's condition so that immediate steps can be taken to treat and manage shock.

"The second aim is to collect data on a large number of patients for analysis with a view to making this

information available through continuing education programs to practising physicians and others involved in the treatment of shock.

"Information on the first aid approach to the shock problem will be distributed amongst firemen, policemen and other first aid organizations."

One of the main pieces of equipment to be used by the research team is a multi-channel recorder to measure, among other things, the patient's heart output and the volume of blood gases.

IMMEDIATE INFORMATION

The machine will record up to six internal conditions simultaneously on a paper strip and thus provide immediate information of value to doctors treating emergency cases.

Dr. Patterson said the research results will be valuable in filling in gaps in one of the most difficult branches of surgery—the management of patients suffering from shock as a result of accidents.

"Treatment of shock," he said, "requires a degree of knowledge and skill not possessed by all who are called on to treat emergency cases, and studies of various problems have suggested that improvement in the original treatment might have lessened subsequent disabilities."

He said the reason the Trauma Research Unit was established ten years ago grew out of the conviction that many people were unaware of how injured persons should be treated initially, and far too many injured were dying or having subsequent complications which could be avoided by better treatment.

"The general public," Dr. Patterson said, "remains remarkably apathetic to this whole problem despite the fact that it costs society millions of dollars every year.

COSTS ENORMOUS

"When someone is injured, either on the job or in some other kind of accident, the cost in lost productivity, medical treatment costs and pensions is enormous.

"One very small study carried out in 1960 by our unit on 46 workmen who had sustained a not uncommon nerve injury showed that the total cost in wages, pensions and medical care was well over three-quarters of a million dollars."

One of the major continuing studies in the Trauma Unit is a survey of motor vehicle and pedestrian accidents, which Dr. Patterson says have reached "epidemic proportions."

The study is being carried out with the cooperation of the Vancouver police, the provincial motor vehicle branch and the VGH emergency department.

Researchers in the Trauma Unit are analysing traffic accidents involving cars and pedestrians to determine if there is a relationship between kinds of accidents and various types of injury and whether or not alcohol is a factor in a large proportion of them.

"In the final analysis," he said, "our aim is to mount an educational program to educate not just practising doctors, but other groups such as policemen, firemen, first aid and ambulance groups, as well as the general public."

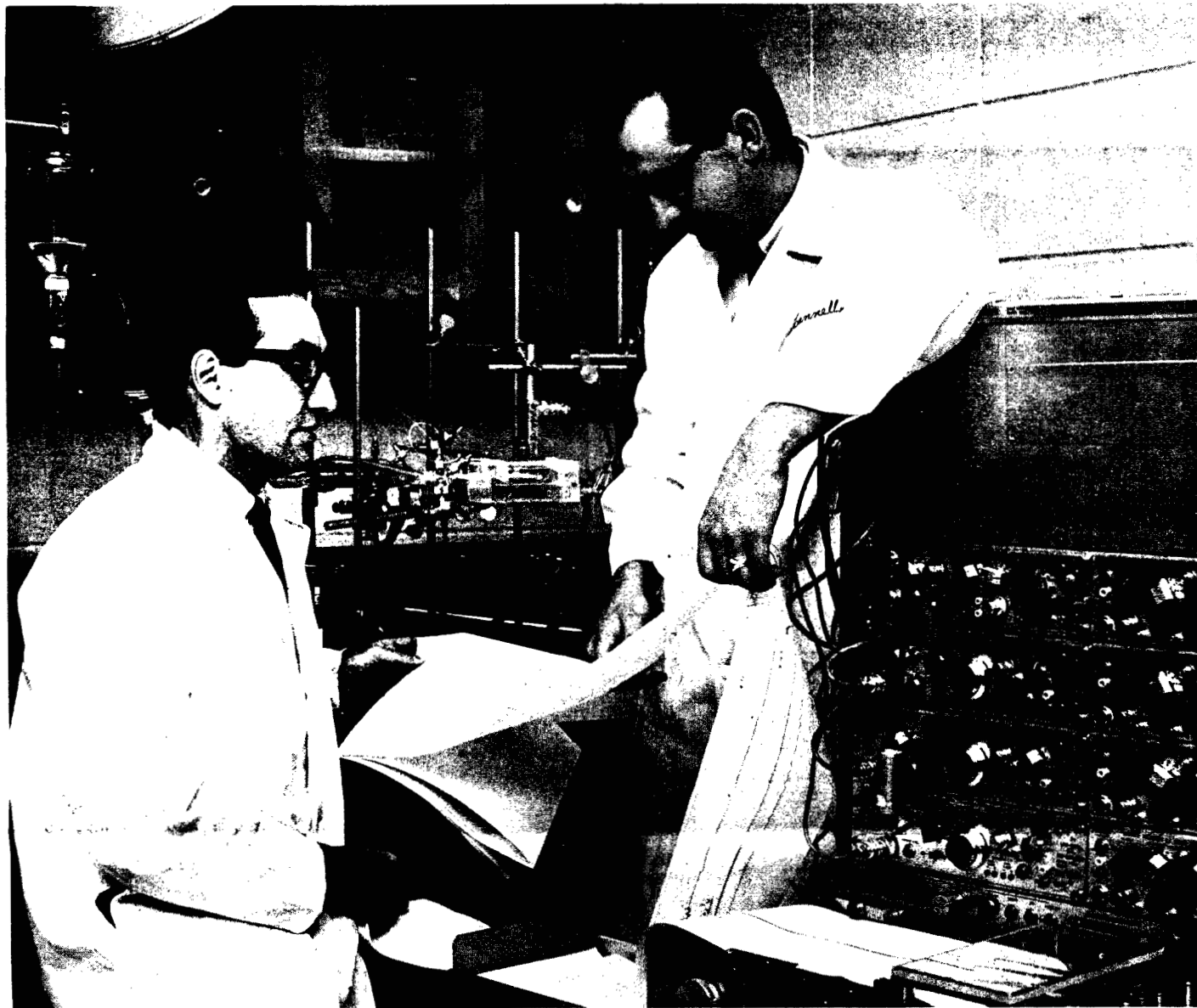
The biggest problem faced by the Trauma Unit is a shortage of funds to initiate new research, Dr. Patterson said.

"The pattern which our work has followed thus far," he said, "is that we obtain relatively small amounts of money from interested organizations or private donors which are used to begin a pilot study.

INITIAL RESULTS

"Within a year we usually have some initial results which are promising. We can then apply to organizations which have larger resources with a reasonable hope that funds will be available to continue the project."

Dr. Patterson said more studies could be undertaken if there were an interest by the Workmen's Compensation Board in studying the medical aspects of injuries as to end results of treatment and methods of treatment, and allowing some budgetary support for research and better methods of treating injured workmen.



TWO MEMBERS of a team of UBC scientists who have begun a teaching and research project on the effects of drugs on human beings are shown with some of the complex equipment to be used in their studies. Dr. Keith MacCannell, right, and Dr. Morley C. Sutter, will combine laboratory experiments

with an education program designed to provide a source of information to B.C.'s practising physicians on the effects of drugs administered to patients and to obtain new information on the action and hazards of drugs in man. Photo by B. C. Jennings.

PASS ON RESULTS TO DOCTORS

Effects of Drugs on Humans To Be Studied by UBC Team

A medical unit made up of a new kind of scientist concerned with teaching and research on the effects of drugs on human beings has begun work at the University of B.C.

The research aspects of the unit, located in UBC's pharmacology department, will be supported over the next three years by a \$57,000 grant from the Canadian Foundation for the Advancement of Therapeutics made to Drs. Keith MacCannell, Morley C. Sutter and Gerald W. Karr.

An additional \$30,000 research grant has been made to Dr. MacCannell by the John and Mary Markle Foundation of New York.

DESCRIBES UNIT

Describing the new research and teaching unit, Dr. MacCannell said the pharmacologist is normally thought of as a scientist primarily interested in the effects of drugs as measured in the laboratory.

"Thalidomide, the drug that caused babies to be born without limbs, emphasized the need for a new kind of scientist—a mixture of clinician and pharmacologist, equally well trained in both fields," Dr. MacCannell said.

He said that at present the number of such scientists in North America is numbered only in the dozens. The three-man clinical pharmacology unit at UBC has been established under

the sponsorship of departments of pharmacology and medicine in the Faculty of Medicine.

The main objectives of the new unit, Dr. MacCannell said, are to provide a source of information to B.C.'s practising doctors on the effects of drugs administered to patients and to obtain new information on the action and hazards of drugs in man.

He said: "There is a pressing need for an educational program to provide the medical profession with reliable information on the effects of drugs in human beings.

"The doctor who graduated from medical school twenty years ago has a bewildering variety of drugs from which to choose. Many of these had not been discovered when he took his training. It is very difficult for him to maintain a busy practice and acquire this new information. It is our job to provide him with the information necessary for a logical choice of drugs.

"We would also like to know more about the toxic effects of drugs. This is difficult information to obtain be-

cause of the fact that most patients receive more than one drug. When an undesirable effect to a drug occurs, tracking down the offender is often difficult and time-consuming."

Dr. Sutter said that many drugs were still used on the basis of trial-and-error experience gained over the years.

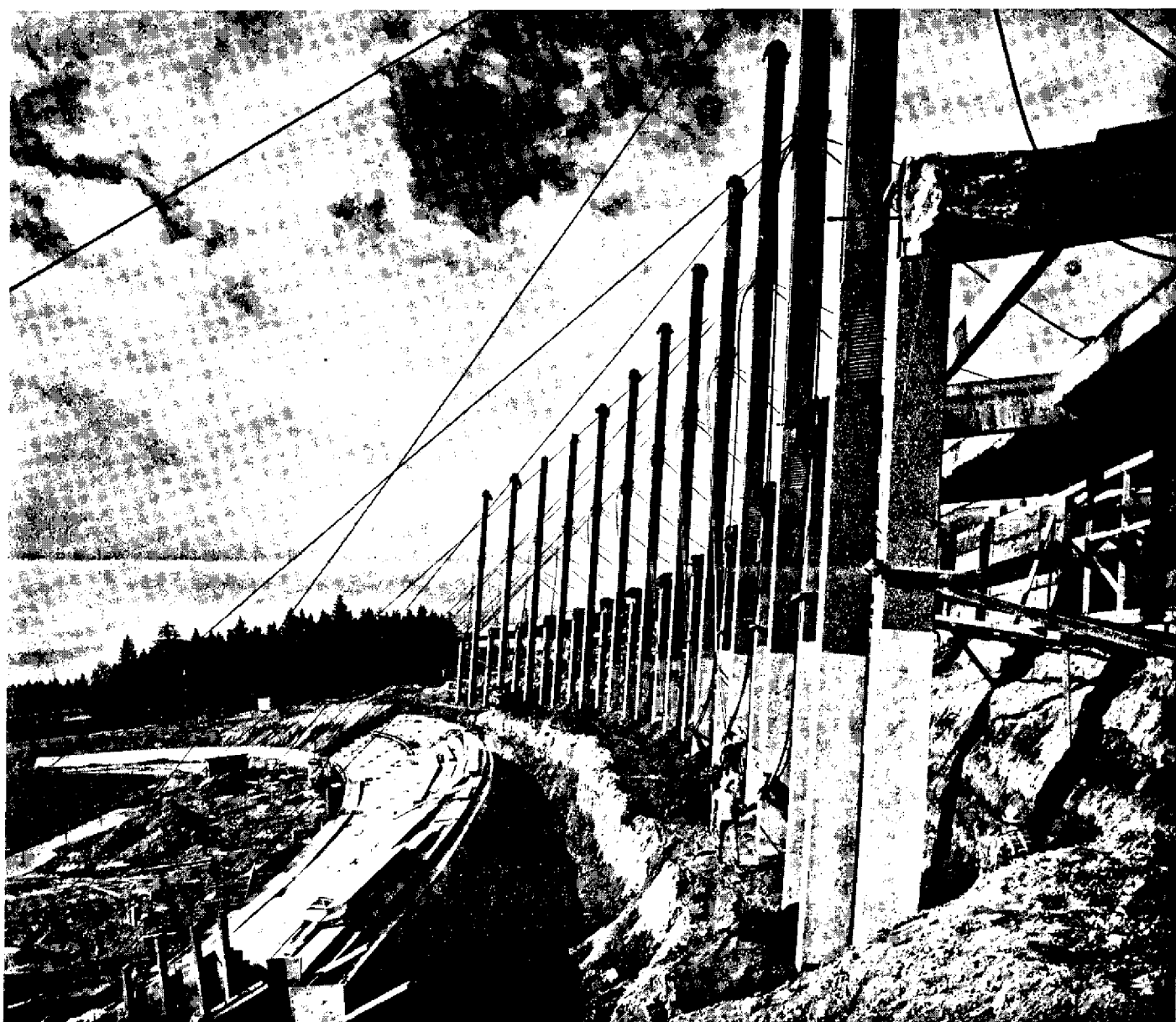
"Although we know these drugs to be safe, we know very little about how they work, whether they work differently in man than in the animal, or perhaps even differently in two human beings," he said.

DRUG ACTION

The group is interested in the action of drugs in animals as well as in man and has research programs in both areas. Each member of the group has independent research grants from the Medical Research Council or the B.C. Heart Foundation to support these investigations.

Dr. MacCannell said: "The amount of direct research which can be done in man is limited, and frequently one has to return to the animal for information.

"However, we can gain a good deal of information simply by collecting blood and urine samples after the patient receives one of his normal medications—like aspirin or an antibiotic."



ROOF COVERING the 3000 seats at the new UBC Thunderbird Stadium on the south campus will be supported by cables hung from the 12 concrete posts shown above. The cable suspension roof, one of the few in the world, was designed by UBC architecture graduate Vladimir Plavsic and avoids high costs of a cantilever roof and posts which would

obstruct the view. The stadium, which will be ready for use later this year, is part of new athletic facilities being developed on the south campus which have been described as "unexcelled on this continent" among universities by Prof. Robert Osborne, director of UBC's school of physical education and recreation. Photo by B. C. Jennings.

Hygiene Program To Start

A program to train dental hygienists will begin in September, 1968, in the faculty of dentistry at the University of B.C.

Miss Margaret M. E. Robinson, a graduate dental hygienist with extensive professional experience, has been named supervisor of the program and assistant professor in the dentistry faculty's dept. of public and community dental health, where the program will be carried on.

Dr. Douglas J. Yeo, head of the department, said the dental hygiene program will consist of two years of study leading to a diploma in dental hygiene.

OBJECT OF PROGRAM

Candidates for admission must have acceptable standing in first year arts or science programs.

"The object of the program," said Dr. Yeo, "will be to impart specialized skill in clinical and preventive dentistry and dental health education.

"Graduates of the program will be licensed to provide direct dental services to patients under the supervision of a dentist.

"Duties of a dental hygienist include examination and recording of a patient's dental condition, prophylactic care of the teeth, taking and pro-

FELLOWSHIP WINNER NAMED

UBC student Dennis Sutherland, 24, of Vancouver, has won a \$2,500 Mackenzie King Travelling Fellowship and will study for a master's degree in business administration at Columbia University.

He graduates from UBC this spring with a bachelor's degree in commerce and business administration.

COULD MEAN BIGGER PROFITS

Grain Movement Simulated In Computer By UBC Researcher

An agricultural economist at the University of B.C. is using a computer to develop more efficient ways of handling the movement of grain from farms to ocean-going vessels.

Dr. George R. Winter and two graduate students have received a \$4,800 grant from the Agricultural Economics Research Council of Canada to launch the second phase of a three-part study which could mean bigger profits for everyone involved in the grain-handling industry.

THREE SECTIONS

Dr. Winter's study is divided into three sections: a "points of origin" section, now nearing completion, to analyse factors involved in grain handling from the farmer's field to local elevators; a port and export facilities study, which is the aspect now being undertaken, and a transportation analysis to be done in the future.

The movement of grain from field to ship, said Dr. Winter, is in reality a "queue" and a special computer program has been developed to make possible the assembly of all the various factors which affect this movement.

"A simple analogy," said Dr. Winter, "would be a set of customers going through a checkout counter at a supermarket.

"The 'queue' computer program is designed to answer such questions as the number of cash registers that would be necessary in a supermarket to ensure that no customer spends more than ten minutes in line."

EVERYBODY QUEUES

In much the same way, he says, grain is involved in a queue when it begins its movement from field to ship. The farmer may find himself in a queue at the local grain elevator, the freight train that transports the grain is in a queue of trains converging on the port facility and the ships which are available to transport the grain have to queue to use loading facilities.

There are a multitude of factors in-

involved in analysing even the initial "points of origin" study which has been carried out over the past two years, said Dr. Winter.

The study involves analysing data obtained from a 650,000-acre sample area in the Peace River district of Alberta between Grande Prairie and Beaverlodge.

Data covering a period of twenty years on such factors as the total crop yield of various grains, yield variation, farm and commercial storage capacity and all costs of handling various grains and other data from six shipping points in the area is in the process of being analysed.

The cost of handling the grain under one configuration of storage capacities is compared with that obtained using another configuration and both are compared with the existing situation to determine if savings are possible and where they may be obtained.

SECOND STAGE

The second stage of the research project will analyse port and export facilities in Vancouver utilizing such data as the length of time taken to unload box cars, the seasonal pattern of off-shore demand, and the marshalling of freight cars and ships alongside local elevators.

The object of the port study is to discover the most efficient size, location and number of terminal elevators in the Vancouver port area, and to develop a computer program which will be capable of finding the same solution for any similar port.

The third and later stage of the project will be an analysis of the transportation system which brings the grain from points of origin to sea port elevators.

BIG ADVANTAGE

When the study is complete and all the phases of the computer model are functioning properly, it will be possible to determine the consequences of any possible change in the entire system, Dr. Winter said.

"Obviously, this has enormous advantages," he said. "We will be able to change one or more factors in the model and determine the consequences for the whole grain handling system. Such experimentation with the system itself would be far too costly and much too time consuming.

"As a result we would be able to question the model about the consequences of closing down a branch line of a railway or consolidating or constructing additional elevator facilities either at prairie points or in ports, or the impact of construction of grain ships of greater speed and carrying capacity."

The united model, involving all three studies, will make it possible to find ideal facilities all along the line, said Dr. Winter, and the possibility of effecting savings is enormous.

"Right now," he said, "one gets the impression that the allocations of various resources to grain handling and shipment may be far from ideal.

WORTHWHILE SAVINGS

"And since annual expenditures in the industry involve millions of dollars, slight savings would be very worthwhile indeed."

Dr. Winter, who is chairman of the agricultural economics department in UBC's faculty of agriculture, gained wide experience in government service, industry, research and teaching before joining the UBC faculty last year from the University of Alberta.

cessing of x-rays, topical application of fluorides and other preventive agents, dental health education for individuals and groups and other duties related to clinical dentistry."

Dr. Yeo said the amount of responsibility delegated to dental hygienists had increased markedly in recent years and promises to increase even further in the future to keep pace with the expanding need for dental care and the changing emphasis from treatment to prevention.

"Well trained dental hygienists can perform many of the preventive treatment services presently being provided by dentists," he said. "By delegating these duties to a hygienist the practicing dentist can provide a more comprehensive health service to an increasing number of patients."

Dr. Yeo said there is a large demand for dental hygienists in B.C. and increased emphasis on the use of dental auxiliaries during undergraduate training will increase the demand for their services by new graduates.

He said approximately 20 dental hygienists are presently registered and practicing in B.C. as compared to almost 800 dentists. "Consequently, the potential demand and opportunities for a dental hygienist are exceedingly good," Dr. Yeo said.

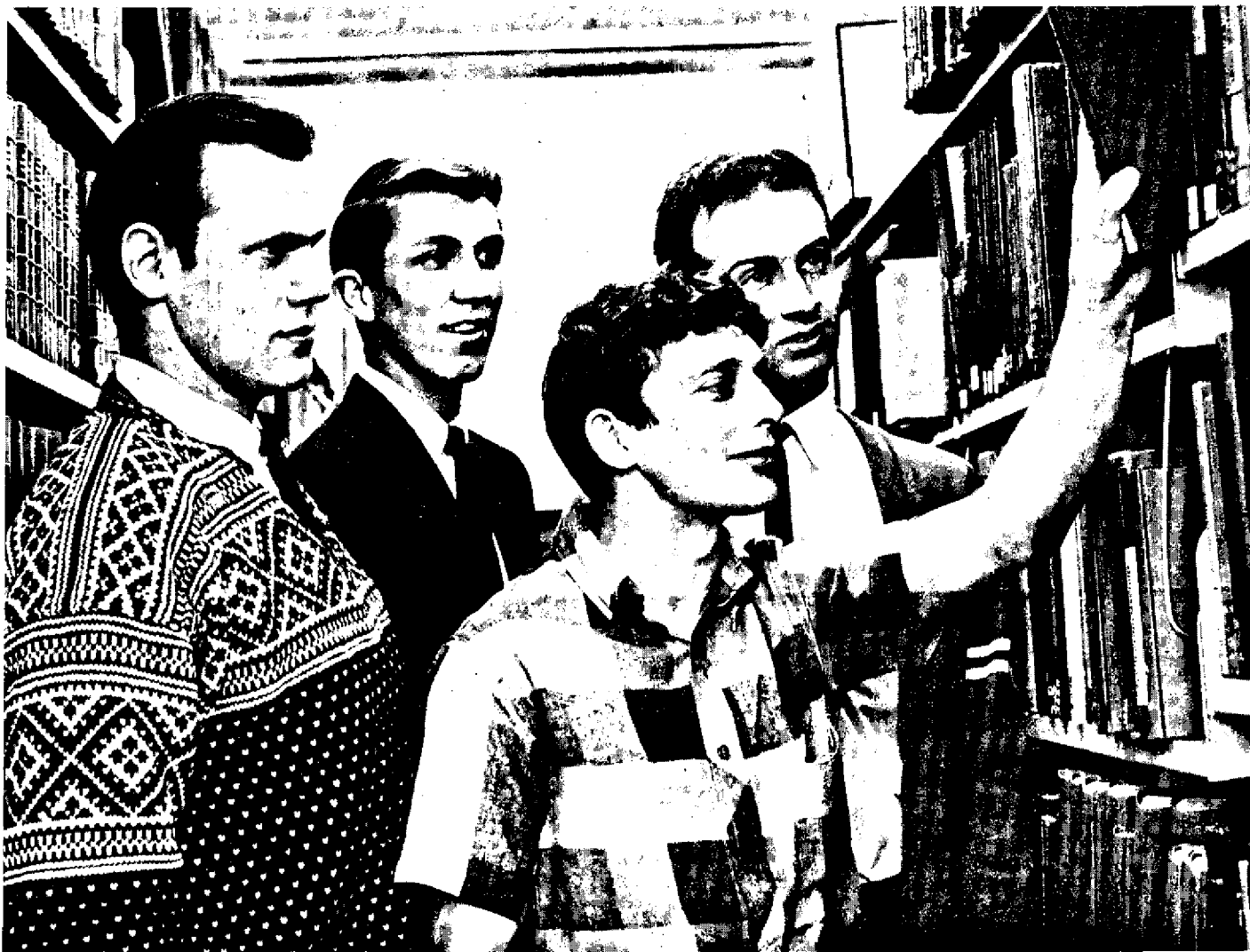
GRADUATE WORK

Miss Robinson, who will supervise the program in Dr. Yeo's department, is a native of Winnipeg and is currently completing graduate work in dental hygiene administration at the University of Iowa.

Miss Robinson holds the degree of bachelor of science in public health dental hygiene from the University of Washington as well as certificates in dental nursing, stenography and book-keeping, and dental hygiene.

She has worked as a ceramic technician and instructor at the University of Toronto and the University of North Carolina and was assistant professor of dental hygiene at the University of Oregon dental school from 1961-65.

She holds a license in dental hygiene in the states of Washington, Oregon, California and Arizona and the province of B.C.



THESE FOUR members of UBC's 1967 graduating class have been awarded National Research Council Science Scholarships to mark NRC's 50th anniversary and Canada's centennial year. Each receives \$5,000 a year plus fees and travel expenses for graduate work at another Canadian university. Winners, left to right, are Ingar Moen, 23, honors physics and mathe-

matics, who plans to study elementary particles and nuclear physics at Toronto; Russell Boyd, 21, honors chemistry, who will study collision phenomena in chemistry at Toronto; Art Warburton, 22, honors mathematics, who will study computer analysis at Montreal, and Dale Cherchas, 22, engineering physics, who plans to study aircraft propulsion at Toronto.

ARRIVED AT UBC TEN YEARS AGO

Sopron Grads Stay in Canada

(Ten years ago, in the spring of 1957, most of the student body and teaching staff of the Hungarian Sopron School of Forestry arrived at UBC after fleeing their native land the previous year during the revolution which swept their country. Four years later, in 1961, 140 students had graduated and the School closed its doors. In the article which follows, Dr. Oscar Sziklai, a member of the original Sopron School faculty who is now associate professor of forestry at UBC, describes what has happened to the graduates and faculty members.)

By DR. OSCAR SZIKLAI
Faculty of Forestry, UBC

The Sopron Forestry School, which was established in 1809, underwent its first migration in 1919 when the whole school, including the staff, students and equipment, was moved from Selmechenya to Sopron.

The second migration occurred in November, 1956 when 85 per cent of the student body and close to 50 per cent of the teaching staff spontane-

ly left everything behind them and escaped from Hungary to Austria.

With the generous help of the Canadian government, the University of British Columbia and the forest industries of the province, 196 students and 29 staff members settled in Vancouver.

TRADITIONAL COURSE

The instruction commenced in September, 1957 following the traditional Sopron Forestry School's curriculum, and providing lectures in the Hungarian language. When the "school from across the sea" finally closed its doors in May, 1961, 140 students had graduated.

What happened to the staff and graduates of the Sopron Forestry School?

The members of the staff found employment in the government and research institutes and five of them are teaching at universities. Two of the 29 staff members joined the Faculty of Forestry at UBC.

A recent survey, supported financially by the Leon and Thea Koerner Foundation, has been completed, and

it appears that of the 140 graduates, 113 of them found employment in Canada, 22 of them in the United States, one in South America and two in Europe. Two returned to Hungary.

Each province in Canada has one or more graduates, and 93, the largest single group, are in British Columbia.

Eighty-eight of the 140 graduates are working in the field of forestry, 26 are in government, 43 are working for private companies, 15 for research organizations and four for educational institutes.

Their positions vary from field forester to logging camp manager, and of those not in the forestry profession, many are in the engineering field.

GRADUATE STUDY

Twenty-nine of the graduates obtained master's degrees from different universities in North America and 10 of these studied further and obtained the Ph.D. degree.

The graduates and the staff fitted into their new environment exceptionally well and are contributing a bright hue to the kaleidoscopic picture of Canadian life.

FROM HONG KONG AND CALGARY

Two Historians Join Faculty

Two historians who head their own departments at the University of Calgary and the University of Hong Kong have been appointed full professors at the University of B.C.

Joining the UBC faculty on July 1 are Prof. Brian Harrison, a southeast Asia expert who heads the University of Hong Kong's history dept., and Prof. Harvey Mitchell, a French history expert who has headed the University of Calgary's department since 1965.

THIRTY HISTORIANS

Dr. Margaret Ormsby, head of UBC's history dept., said the new appointments will bring to 30 the number of full-time historians teaching at UBC.

"During the coming year," she said, "we will offer 25 courses to nearly 3,000 undergraduates. From 100 applications we will select between 25 and 30 new candidates to work on master's

degrees and doctorates, bringing the total number in graduate studies to 70.

"This is a notable increase even over the past year when 48 graduate students, including 17 Ph.D. students, were registered. Since 1964, when the Ph.D. program was first introduced at UBC, enrolment in graduate studies has doubled."

Miss Ormsby said the department now offers courses in most major areas of history, including the modern Chinese and Japanese periods, and the appointment of Dr. Harrison foreshadows an increased emphasis on Asian history.

Dr. Harrison is a native of Ireland and a graduate of Trinity College, Dublin, where he received the gold medal and first class honours on graduation with the bachelor of arts degree in 1931. He received his master of arts degree from Trinity College in 1935.

He was senior lecturer in history at

the University of Malaya in Singapore from 1950 to 1952 before joining the University of Hong Kong as history dept. head in 1953.

Prof. Harrison is the author of a standard reference work entitled "Southeast Asia—A Short History," first published in 1954 and since translated into six languages, including Japanese, Chinese and Dutch.

WINNIPEG NATIVE

Prof. Harvey Mitchell, currently head of Calgary's history dept., is a native of Winnipeg.

He obtained his bachelor's degree at Manitoba in 1949, his master's degree from the University of Minnesota in 1950 and his doctorate at the University of London in 1954.

He is the author of a highly-regarded study of the French revolution entitled "The Underground War Against Revolutionary France," published in 1965.

Gifts Aid New Building

Individuals and organizations have contributed more than \$41,000 to assist in provision of specialized facilities for agriculture in UBC's new forestry-agriculture building.

● Mr. and Mrs. David C. Swackhamer, of California, both graduates of the agriculture faculty, gave \$25,000 for furnishings and other facilities in building's library.

Mrs. Swackhamer (BSA '44), is the daughter of the late Mr. and Mrs. J. G. Robson, of New Westminster, who contributed \$250,000 to the 1958 UBC Development Fund for construction of residences. Mr. Swackhamer received his BSA degree from UBC in 1943.

● Miss Nan Bostock, of Monte Creek, B.C., gave \$15,000 in memory of her late sister, Miss Jean Bostock, to assist in establishment of a weed control laboratory in the new building.

● The Vancouver branch of the B.C. Institute of Agrologists and the Agricultural Institute of Canada contributed \$500 to provide furnishings in the offices of the Agricultural Undergraduate Society.

● Friends and former students of the late Allan M. Macdonald, a UBC graduate and former professor at Macdonald College in Quebec, who died in 1964, contributed \$850 for furnishings in the agricultural seminar rooms.

● Sigma Tau Epsilon, the honorary agriculture fraternity, will assist in the collection of source material in agricultural history to be included as a unit in the building's library.

● A special section of the Agriculture-Forestry Library dealing with bee-keeping will be named in honour of Mr. J. W. Winson, one of B.C.'s best-known naturalists who wrote under the pen name "Wildwood" in The Province for more than 30 years.

Mr. Winson was president of the B.C. Honey Producers' Association for 12 years and the B.C. Entomological Society for six years. Material for the section is being collected by Mr. John Corner, provincial apiarist; Mr. Percy Hodgson, of the B.C. Honey Producers' Association, and Dr. George Eaton, associate professor of horticulture at UBC.

Board Approves Slight Increase In Food Costs

Prices of most items sold in campus food services will be increased by from five to 15 cents effective July 1.

The increases, approved by the Board of Governors, will amount to about 11 per cent over-all. Coffee will remain priced at 10 cents.

The increased revenue from food sales will be used in part to meet increasing costs, including salaries, and in part to finance the construction and equipping of kitchen and dining facilities in the new Student Union Building.

This part of the cost of the SUB is being borne by the University, rather than by the Alma Mater Society.

Ex-President Honored

Dr. L. S. Klinck, 90, president of UBC from 1919 to 1944, was one of 151 citizens residing in Canada for 75 years who received pioneer medals at a dinner May 10 sponsored by the West Vancouver Centennial Committee.

Dr. Klinck was born in York County, Ontario, and came to B.C. in 1914 as dean of agriculture at UBC.

UBC LIBRARY SCHOOL FIVE YEARS OLD

School Triples Size, Keeps High Standard

Western Canada's only school of librarianship at UBC has almost tripled in size in its first five years of operation, but maintains the high standards with which it started in 1961.

Dr. Samuel Rothstein, head of the school, says, "There is a pressure to expand to meet the demand for librarians by public and university libraries, but quality is essential. The strength of our school lies in the selection of the students.

MAKE LIBRARIES USEFUL

"Our purpose is to give a group of top university graduates the understanding, motivation, skills and knowledge to make libraries of maximum use to society."

Admission standards to the UBC school require a student to have a bachelor's degree with at least second class standing and a working knowledge of a second language. The 81 students in the school this past year were chosen from almost three times that number of qualified applicants.

"We consider our program a five-year one," Dr. Rothstein says. "The first four years, the under-

graduate program, develop broadly educated people. In their year with us, students acquire the professional knowledge and motivation.

"The task of the librarian is to raise the value of print to its highest power. The ultimate role is to teach with books, by stimulating and guiding reading.

"The librarian's guiding role in adult and young people's education can often be more effective than that of the classroom teacher, for self-instruction is of more consequence than formal learning. The library is a fundamental part of the education process — a basic resource for formal education, one of the chief means of self-education and scholarship.

"The library is now involved in all aspects of learning, offering films and records as well as books. It often sponsors lecture programs and houses art galleries and museums.

"As a specialist in information, the librarian makes available a wide selection of material in collections organized to facilitate their use."

Dr. Rothstein says that automation is not only changing library processes, freeing librarians from

many tasks, but is increasing leisure time for people to make more and more use of libraries.

The school hopes to offer a master's degree in librarianship in 1967 or 1968, "but the first priority in developing a master's program is to establish adequate scholarships since very few librarians can afford to undertake a master's program without financial assistance."

EARLY ACCREDITATION

An early acknowledgement of the UBC school's quality came in 1963 when it was accredited by the Canadian and American Library Associations in the minimum time of 18 months. The UBC school was only the 35th in North America so accredited, though several hundred institutions offer training in library work.

Accreditation makes UBC's bachelor of library science graduates eligible for positions in leading Canadian and American libraries. The school receives many letters from libraries inviting applications for positions and each year representatives of some 30 libraries visit the campus to interview potential employees.

Since UBC enrolled its first 28 students in 1961, it has conferred degrees on 225 graduates who have strengthened library work across Canada.

Well over 90 percent have remained in Canada; about half in B.C., one-quarter in prairie libraries, another one-sixth in Ontario, 15 in the United States and at least one on every other continent.

Students come to UBC from all over Canada because it is one of only three English-speaking schools of librarianship (the others are at McGill and Toronto). New library schools will be established at the University of Western Ontario in 1967 and at the University of Alberta in 1968.

In this year's class of 81 students, 41 were from B.C., 24 from the prairies, 10 from Ontario, three from Quebec, two from the United States and one from Hong Kong. They had majored in 40 different undergraduate programs.

SEMI-TUTORIAL SYSTEM OPERATED

The school operates on a semi-tutorial system under which seven full-time and five part-time faculty members work with students individually and in small groups.

The autumn term emphasizes basic skills: cataloguing, classification, bibliography, administration, book evaluation. In the spring term, Dr. Rothstein says, "the student receives an introduction to specialization; full specialization takes many years."

The student is made acquainted with such areas as the literature of the sciences and technology or of the humanities and social sciences, and with administration and reference work, reader's advisory service, and the various types of library.

The lower mainland is an area rich in the variety of its libraries and a fine laboratory for the school, says Dr. Rothstein.

The school is housed in the upper north wing of the UBC library. With over 800,000 volumes this is the largest library in western Canada and destined to triple in size in the next decade.



STUDENTS in UBC's school of librarianship hear a lecture on an advanced type of IBM data collection system which is replacing traditional methods of keeping track of books. Holding punch cards is Mrs.

Anne Brearley, assistant professor of librarianship. Intent student librarians are, left to right, Shannon Harper, George Veenhuysen and Heather McRitchie. Photo by B. C. Jennings.

TEN TIMES FASTER THAN PRESENT MACHINE

Board Approves New Computer for Campus

Plans to advance to a "third generation" computer at the University of B.C. in July, 1968, have been approved in principle by the Board of Governors, subject to financing being available at that time.

President John B. Macdonald has written to International Business Machines setting forth UBC's intention, under these conditions, to rent a new IBM computer system 360, Model 67, which would:

1. Increase by 10 times the speed and memory capacity offered by the present IBM 7040 computer.
2. Make the computer a working partner in teaching and research activities by making it accessible for instant consultation and response within seconds through 40 terminals at strategic campus locations.

KEEP ABREAST

The advance into a third generation computing system will keep UBC abreast with several other Canadian universities (such as Alberta, Toronto, Waterloo, Manitoba and McGill), which are making similar advances. No third generation computer has yet been installed in Canada.

The July, 1968, target date is subject to UBC having available in operating funds the \$960,000 annual rental for the new system—about five times the rental of the present IBM 7040.

(A statement of intent is necessary because computers are assembled to order, and take up to 18 months to complete).

"The new system is designed to meet the increasing need for a computer in research, teaching and administration," said Dr. James M. Kennedy, director of the UBC Computing Centre.

"In giving approval in principle, the Board has recognized that the emergence of a third-generation computer utility has opened up a new era in the use of computers.

MODERN SYSTEM

"In the science—or art—of computation, to be a few years behind is equivalent to being a whole generation out of date in other fields. It is therefore urgent to install a modern system that will keep UBC in the forefront in research and teaching.

"While the most dramatic gain appears to be in speed, the emphasis is on changing the mode of operation rather than supplying more brute-force computing power.

"By providing many terminals around the campus, the computer will become a partner in the problem-solving process, rather than a distant sort of oracle consulted by written memorandum.

"Put rather loosely, it will mean that the appropriate person engaged

in teaching or research can have a computer at his elbow, to be consulted at will and able to respond within seconds.

"This simple access would open up many new areas of application in fields like psychology, education and the social sciences where studies are closely bound to interaction of the man and the machine."

Dr. Kennedy said that at present about 1,500 undergraduates and 500 graduate students and professors engaged in research use the single-access IBM 7040 computer.

Programs prepared on Fortran cards by undergraduates in engineering and science as credit work are run through the computer during the

night, often meaning delays of up to 24 hours.

The new system would provide half a dozen terminals situated in areas of heavy programming, each equipped to scan programs on cards and feed them by telephone wires to the computer, and record the computer's response on a printer. A single set-up of this kind is the sole access to the present computer.

MORE TERMINALS

Up to 32 additional terminals would have equipment to enable users to "converse" with the computer, putting shorter questions and getting back instant responses, or tapping material stored in the computer's memory bank.

Construction Will Aid UBC's Computing Centre

An addition to the Civil Engineering Building to provide new quarters for part of the University of B.C.'s Computing Centre will soon be under construction.

The Board of Governors has awarded a contract in the amount of \$300,952 to Pacific Coast Construction Co. Ltd. to enclose an area beneath the overhanging east wing of the building. The area is currently being used as a parking lot.

The addition will provide 5,000

square feet of space on two floors. The lower floor will house offices and a key-punch room where undergraduate students will prepare and check course assignments using the computer. The upper floor will provide more office space, a small library and a seminar room.

The board has also awarded a contract for a \$108,245 addition to the campus bookstore. The addition will provide new sales space and will extend south from the existing store.

Eight UBC Professors Reach Retirement Age

Eight long-time members of the University of B.C. faculty, including two deans, have retired as full-time members of the teaching and administrative staff.

All but two of them will continue research and teaching at UBC next year as the result of a University regulation which permits reappointment on a year to year basis.

Deans who will retire as heads of their faculties are Dr. Blythe A. Eagles, dean of agriculture, and Dr. A. Whitney Matthews, dean of pharmacy.

Professors who have reached retirement age are: Miss H. Evelyn Mallory, director of UBC's nursing school; Dr. Dorothy Dallas, dept. of French; Dr. Harry L. Stein, Faculty of Education; Dr. Roy Daniells, University Professor of English Language and Literature; Dr. Cecil B. Duff, dept. of microbiology, and Dr. Braham D. Griffith, Faculty of Forestry.

Only Dean Matthews and Dr. Dallas plan to retire from University teaching and administration. The others have been reappointed with the same title or that of lecturer during the coming year.

● Dean Eagles, a member of the UBC faculty since 1929, has been dean of agriculture since 1955. He is mainly responsible for the planning which has led to construction of the new Forestry-Agriculture building. (See page five for further biographical details.)

Dean Eagles has been appointed a lecturer in the animal science division of the agriculture faculty for the coming year.

● Dean A. "Whit" Matthews, a native of Summerside, Prince Edward

Island, has been dean of pharmacy at UBC since 1952. A graduate of the Universities of Alberta and Florida, he was director of the University of Alberta's school of pharmacy from 1942 to 1946.

In addition to a professional career that saw him named president of the Canadian Pharmaceutical Association in 1962, Dean Matthews has been closely associated with the organization of Canadian football on a national basis and served as chairman of the Men's Athletic Committee at UBC for many years.

He is a former secretary and president of the Alberta Rugby Union and president of the Western Canada Intercollegiate Rugby Union and was instrumental in assisting with negotiations for the B.C. Lions' membership in the Western Interprovincial Football Union when he moved to Vancouver.

● Miss Evelyn Mallory, who joined the UBC faculty in 1942 as a part-time instructor, was named an associate professor in 1943 and director of the school of nursing in 1951. She will continue as director until August 31, 1967.

She trained at Winnipeg General Hospital and later obtained the degrees of bachelor of science and master of arts at Columbia University, New York. She has served as president of a number of professional groups, including the Canadian Conference of University Schools of Nursing and the Registered Nurses' Association of B.C.

● Dr. Harry L. Stein, who joined UBC in 1956, will continue as supervisor of graduate studies in the Faculty of Education during the coming year.

He is a graduate of the University of Manitoba, where he received the degrees of bachelor and master of arts and the University of Minnesota, where he obtained his Ph.D.

Dr. Stein is professor of educational psychology at UBC and is a noted author on educational subjects, principally in the areas of guidance and mathematics.

● Dr. Roy Daniells, who will continue as University Professor of English Language and Literature, is a former head of the UBC English department. He is noted for his own poetry as well as numerous studies in the field of 17th century literature.

● Dr. Dorothy Dallas has been associated with UBC since 1920 as a student and teacher of French. She obtained both her BA and MA degrees at UBC and her doctorate at the University of Paris, where she received a gold medal from the French Academy in recognition of her thesis.

She taught while a graduate student at UBC and after completing her doctorate returned to Vancouver in 1932 to join the UBC faculty full time.

● Prof. Cecil B. Duff joined the UBC faculty in 1929 after graduation from the University of Toronto with the degrees of bachelor and master of arts and doctor of philosophy.

He will continue to lecture in UBC's microbiology dept. in the coming year. He has published numerous scientific papers based on research and during the past year was president of the Vancouver Institute.

● Dr. Braham G. Griffith, of the Faculty of Forestry, has taught at UBC since 1937. He received his bachelor and master of arts degrees at UBC, his master of forestry degree from Harvard and his doctorate from the University of Washington.

In addition to teaching and administrative duties in the forestry faculty, he has carried out extensive research and is currently completing a research study on the growth of Douglas fir that required ten years of observation at UBC's Haney Research Forest.

Dr. Griffith has been reappointed as a lecturer in the forestry faculty for the coming year.

Summer Enrolment Down

Expo '67 is one of three major factors contributing to a drop in Summer Session enrolment at the University of B.C., according to Prof. Wilfred Auld, Summer Session director.

He estimates that several hundred teachers have decided not to attend UBC's Summer Session July 3 to August 18 in order to travel to Montreal by car with their families.

At recent meetings of the Canadian Association of Directors of Extension and Summer Session held in Montreal, officials from many other Canadian universities across Canada predicted similar enrolment drops due to the Expo attraction, Prof. Auld said.

As a result of this and two other factors, Prof. Auld said, UBC's summer enrolment is expected to drop from last year's high of 5,943 students to between 4,500 and 5,000 students in 1967.

The second major factor affecting enrolment is cancellation by the provincial department of education of the requirement that two groups of teachers had to take six additional units of course work after graduation.

Students affected by this ruling in the past were those who had taken the one-year post-graduate course in teacher training after completing degree requirements in another UBC faculty, and teachers who came to B.C. from other Canadian provinces or from abroad.

He estimated that there would probably be between 100 and 200 teachers from outside B.C. who are no longer required to take the additional courses to orient themselves to B.C.'s educational system.

He said the third factor affecting summer enrolment was the tendency for student teachers taking elementary training to stay in the University longer and earn degrees rather than interim certificates at the end of two years.

Summer Session students at UBC will enrol for 240 courses and will be taught by 266 faculty members, made up of 103 visitors from abroad, other parts of Canada and the Vancouver area, and 163 UBC professors.

FROM PAGE ONE

Class Leaders

Faculties of Arts and Science: William David Sharp, 4026 West 8th Avenue, Vancouver.

The University Medal (Head of the Graduating Class in Science, degree of B.Sc.): Stewart Alan Smith, 4574 West 15th Avenue, Vancouver.

The Wilfrid Sadler Gold Medal (Head of the Graduating Class in Agriculture, degree of B.S.A.): Robert John Hudson, Box 432, Hamiota, Manitoba.

The Association of Professional Engineers Gold Medal (Head of the Graduating Class in Engineering, degree of B.A.Sc.): Terrance R. Bourk, 6111 Kitchener Street, Burnaby, B.C.

The Kiwanis Club Gold Medal and Prize, \$100 (Head of the Graduating Class in Commerce and Business Administration, degree of B.Com.): Robert J. Warkentin, 1380 West 21st Street, North Vancouver, B.C.

The Law Society Gold Medal and Prize (Head of the Graduating Class in Law, degree of LL.B.): Dennis Patrick Coates, R.R. 1, Osoyoos, B.C.

The Hamber Gold Medal and Prize, \$250 (Head of the Graduating Class in Medicine, degree of M.D.): Arthur Dodek, 475 West 16th Avenue, Vancouver.

The Horner Gold Medal for Pharmacy (Head of the Graduating Class in Pharmacy, degree of B.S.P.): James Everett Coates, 1063 Cambie Street, Richmond, B.C.

The H. R. MacMillan Prize in Forestry, \$100 (Head of the Graduating Class in Forestry, degree of B.S.F.): Robert P. Willington, 8729 Fremlin Street, Vancouver.

The Canadian Institute of Forestry Medal (best all-round record in professional forestry and overall qualities in four-year course): Robert P. Willington, 8729 Fremlin Street, Vancouver.

The Dr. Maxwell A. Cameron Memorial Medal and Prize, \$100 (Head of the Graduating Class in Education, Elementary Teaching Field, degree of B.Ed.): Mrs. Linda L. Florence, 3378 Joyce Avenue, Powell River, B.C.

The Dr. Maxwell A. Cameron Memorial Medal and Prize, \$100 (Head of the Graduating Class in Education, Secondary Teaching Field, degree of B.Ed.): William Michael Ross, 373 Steveston Highway, Steveston, B.C.

The Ruth Cameron Medal for Librarianship (Head of the Graduating Class in Librarianship, degree of B.L.S.): Barrie A. F. Burns, 913 Calrossie Boulevard, Winnipeg 19, Manitoba.

The Helen L. Balfour Prize, \$250 (Head of the Graduating Class in Nursing, degree of B.S.N.): Mrs. Sylvia M. Mandryk, No. 301, 1016 West 12th Avenue, Vancouver.

The Royal Architectural Institute of Canada Medal (outstanding in Architecture, degree of B.Arch.): Thomas Stuart Annandale, 4446 West 13th Avenue, Vancouver.

The Canadian Association for Health, Physical Education and Recreation Medal (Head of the Graduating Class in Physical Education and Recreation, degree of B.P.E.): Janice I. Robinson, 468 East 53rd Avenue, Vancouver.

Special University Prize, \$100 (Head of the Graduating Class in Home Economics, degree of B.H.E.): Mrs. Joyce E. Mackay, No. 1, 1125 West 71st Avenue, Vancouver.

Special University Prize, \$100 (Head of the Graduating Class in Music, degree of B.Mus.): Michael James Purves-Smith, 224-7th Street, New Westminster, B.C.

The Moe and Leah Chetkow Memorial Prize (for proficiency in the M.S.W. course), \$100: Karen M. Greer, 7590 Grandview Douglas, Burnaby, B.C.

FROM PAGE ONE

Aggie Dean

more and more wedded to a solid scientific background. The agricultural graduate must have a highly sophisticated training qualifying him for leadership roles in government, or the industry, or for advanced scientific study and research in universities.

"Meanwhile, many of the practical service functions provided to the farming community will gradually be assumed by regional colleges and institutes of technology.

"UBC is fortunate in attracting as our new dean Dr. Michael Shaw, an outstanding scientist with considerable administrative experience. His own research in wheat rust is highly important in Canada and world food problems.

"In addition he has become familiar with many of the special problems through service on a commission established by the Science Council to study agricultural research in Canada.

"The faculty and the University can expect able and imaginative leadership from Dr. Shaw."

Dr. Shaw is a member of the Royal Society of Canada, the Linnean Society of London, the American and Canadian Societies of Plant Physiologists, the American Institute of Biological Sciences, the Canadian Botanical Association and other scientific organizations.

Dr. Shaw is married and has four children.

FROM PAGE ONE

Student Senators

sary to provide student seats on the Senate. The Universities Act of 1963 gives the Senate power to provide Senate representation for "any society or group or organization in the Province of British Columbia which in the opinion of the Senate contributes in a significant way to the economic or cultural welfare of the Province."

Under the Universities Act, the election of the four students would require election of four more faculty members, to preserve the faculty's traditional majority of Senate membership.

FROM PAGE ONE

Agencies Assist Program

the various professions which make up the health team. A community in the Okanagan, the Thompson river area or northern Vancouver Island will probably be selected for the project," he said.

Dr. Williams said design of the program would place special emphasis on the interests of four voluntary health agencies which had made special grants to aid the program.

A total of \$15,000 in aid has been received from the Canadian Arthritis and Rheumatism Society, the B.C. and Yukon division of the Canadian Cancer Society, the B.C. Heart Foundation and the B.C. TB-Christmas Seals Society.

An annual grant of \$5,000 from the B.C. Medical Association will also be used to support the pilot study.

Dr. Murphy, 43, who will coordinate the program, is a native of Saskatoon who obtained his medical degree at Queen's University and has been in private practice in Vancouver since 1957.

UBC Reports

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1 ANNE M YANDLE
LIBRARY