

WEEK

a publication of the Lakehead University information office

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APRIL 16, 1974



Alumni Presents Cheque

Two weeks ago Peter Prior, representing Gary Kunnas, President of the Lakehead University Alumni Association, presented Dr. Booth with a cheque for \$500.00. This money, donated by the Al-

umni, is the kick-off for the library Book Fund. Also in the picture with Peter Prior and Dr. Booth is the Secretary of the Alumni, Irma Reinikka.

More Than \$200,000 in N.R.C. Grants

Among the recently announced National Research Council (NRC) of Canada grants to aid Scientific Research in Canadian Universities were a total of 39 grants to Lakehead University Faculty members which, combined, add up to \$204,576.00.

Dr. Robert Ross, Dean of the Faculty of Science, said that this year's total grants represent a five percent increase over those received last year: "That total is much more impressive when you consider that NRC's overall budget did not increase

while the number of requests for grants from scientists across Canada did increase dramatically. I'm extremely proud of the group of scientists we have here at Lakehead. They are a highly qualified group as is borne out by the quality and quantity of their research and the high regard in which they are held by their fellow scientists and, of course, the NRC".

A list of names, grant amounts and types of research follows:

THIS YEAR'S INSTALLMENT OF THREE YEAR GRANTS

NAME	GRANT TYPE	AWARDED	3 YR. GRANT
W.R. Allaway			
Mathematics Dept.	0.	\$ 1,101	2nd of 3
P. Barclay-Estrup			
Biology Dept.	0.	4,500	2nd of 3
R.A. Day			
Mathematics Dept.	0.	5,300	2nd of 3
M. Fels			
Engineering Dept.	0.	4,500	1st of 3
P.O. Frederickson			
Mathematics Dept.	0.	1,500	3rd of 3
R. Freitag			
Biology Dept.	0.	5,000	2nd of 3
J.S. Griffith			
Mathematics Dept.	0.	7,200	2nd of 3
H.C.R. Groh			

1974 University Applications

The numbers applying for admission to the first year at Ontario's fifteen universities, as of March 15th, show an increase over 1973 of 8.3%. The number applying directly from Ontario Secondary Schools is up by 3.6%; other applicants show an increase of 23.7%. The figures should be interpreted with caution because actual enrolments in the past have varied significantly from the number of applicants recorded by March 15th. Since an applicant can apply to three universities it is not yet possible to predict accurately what enrolment will be in individual universities.

The number of first choices are substantially increased for some universities and at this date show a decrease in others. Since first year enrolment is limited in some cases, shifts of students to second and third choices will take place.

Secondary school applicants are showing increased preference for university programmes in agriculture, architecture, business administration, engineering, environmental studies, forestry, household science, landscape architecture, nursing, physical education, science and social work. There is a declining interest in fine and applied arts, journalism, mathematics, music and rehabilitation medicine.

Nor'Wester News

After the first day of the Lakehead University squash tournament four competitors in each division remain undefeated. These include:

Men's "A" - Earl, Holah, France, Joseph
Men's "B" - Garland, Aderonmv, McLeod, LaVoie

Men's "C" - Horseman, Hall, McCrindle, Curtis

Women - Gibson, Hinnegan, Lappage, Colosimo

Eliminations will resume at 10:00 a.m. on Saturday, April 6th while the semi-finals and finals will be conducted on Sunday, April 7th starting at 11:00 a.m. Match times for the upcoming competition on the weekend are posted in the display cases at the C.J. Sanders Fieldhouse. All competitors are urged to check their match times.

Three Thunder Bay judoists won their categories at the Mid-Western Judo Championships held in Dryden on Saturday, March 30th. Art Lannon of the Confederation College Judo Club won the senior heavyweight novice division while two members of the Lakehead University Judo Club captured titles. Kevin Kennedy defeated Ed Farrow of Dryden to win the senior middleweight category and Ron Lappage won over Norm Duhamel of Dryden in the finals of the black belt heavyweight division.

Thunder Bay judoists are now aiming for victories in the Kenora judo tournament to be held May 4th.

Michael O'Dwyer

Cont'd. page three

People

Professor K. C. A. Dawson, Chairman, Department of Anthropology attended the Canadian Archaeological Association Annual Meeting March 7th to 10th at Whitehorse, Yukon and the Ontario Archaeological and Historical Sites Board Meeting March 13th in Toronto.

Appointments

Dr. Robert Rhodes from the State University of New York will be joining the Department of Sociology as an Associate Professor. Dr. Rhodes, who is married and has one child, received his B.A. in 1963, at the University of Michigan, his M. A. at Columbia University in 1965 and his Ph. D. at Princeton University in 1970.

After July 1st. the School of Business Administration will have a new Assistant Professor Mr. Udayan D. Rege, presently living in London, Ontario received B. Comm. with Honours in 1960 and his M. Comm. in 1963 from the University of Bombay and his M. B. A. from the University of Pennsylvania in 1967. Mr. Rege is married and has one child.

Another new member of the School of Business Administration is Dr. Yassin Sankar. Dr. Sankar, a Canadian who is teaching at the University of Lancaster in England, received his B. A. from McGill University in 1966, his M. A. from Toronto in 1968 and his Ph. D. from John Hopkins in 1972. Dr. Sankar will join the Faculty as an Assistant Professor.

The last Computer Centre Newsletter announced the appointment of Mr. Jack Rombaut as Systems Analyst responsible for financial systems. Mr. McEwan is pleased to announce the appointment of a second Systems Analyst - Mr. Don Domansky - whose areas of responsibility will include the Student Record System and Library Systems.

En Francais

On April 9th and 10th, the revised program includes a matching of wits between Algonquin Avenue and C.D. Howe elementary schools, an interview with Dr. Klein, a resident physician, about his travels in Africa and a film about the Swiss sculpteur Albert Rouiller. To celebrate International Health Week - April 2 to 13 - a special feature "La Cigarette-Parions-en!" deals with a debate on the social and physical effects of cigarette smoking.

On April 16, the second part of the three part series "Au Sommet" with Algonquin versus Black Bay School introduces the program. Dr. Klein continues his travels in Africa with an interesting slide presentation, Mme Brault reveals her delicious recipe for ragout and Mme Anita Stewart sings several modern and folklore tunes (sometimes accompanied by son John on the spoons).

Wanted

Are you going on Sabbatical for a year? Do you need someone to look after your house for the year? If so, then contact Michael Winder, 537 Norah Street, S., 622-7380 or Lakehead University Information Office, Extension 631.

Economics Notes

The Spring issue of The Logistics and Transportation Review contains an article by Norman C. Bonsor of the Department of Economics entitled "An Optimal Pricing Strategy for Scheduled Air Carriers Over the North Atlantic". Direct and indirect operating cost functions are derived and it is shown that the current regulatory structure is sub-optimal and inconsequence leads to a misallocation of resources. Optimal prices for resource allocation are compared to the existing price level.

The latest issue of The Lakehead University Review (Volume VI-Fall-Winter 1973) contains a paper by Chris Jecchinis on "Technological Change and Socio-Economic Development in North America: Problems and Prospects". Dr. Jecchinis argues that it is not technological change and automation that create acute social and environmental problems but the uncontrolled technological change and unbalanced growth which pose a serious threat to the social and economic development of Canada and the United States. He maintains that these problems have become too great and too complex for industry and organized labour to solve alone, and that they require the introduction of non-conventional policies and the coordinated efforts of all interested parties under the direction and control of the government.

In the same issue of the L.U. Review, G. C. Ruggeri has written a review article on the Economic Council of Canada's Ninth Annual Review: The Years to 1980.

Chris Jecchinis will present a paper on "The Causes and Effects of Industrial Conflict" to the participants of the Annual Spring Conference of the Association of Municipal Electrical Utilities which will be held in Thunder Bay on April 16 - 18, 1974.

Dr. Garfield Clack, Chief of the Industrial Relations Research Branch, Canada Department of Labour gave two lectures on April 2nd, 1974 to students of L.U. and special guests from local industries, trade unions and government departments. Dr. Clack's visit was organized jointly by the Canada Department of Labour, the Department of Economics of L.U., and the Personnel Association of Northwestern Ontario.

Sublet

Fully furnished garden home in Ottawa South, from June 1, 1974 to August 1, 1975. Three bedrooms, den, kitchen, living and dining rooms, 1 1/2 bathrooms. Appliances include washer, dryer, dishwasher and freezer. Beautiful location on Rideau River, 10-minute walk to Carlton, 8-10 minute drive to Ottawa University, close to bus routes and schools. All utilities (except telephone) included in rent - \$350.00 per month.

CONTACT: Prof. D. A. Kasianchuk
29 Marco Lane
OTTAWA, Ont. K1S 5A1
PH. 232-5249

Student Placement

Lakehead Board of Education - will be on campus April 3rd and 4th to interview interested graduating Faculty of Education students who applied by the deadline date of March 27.

Canada Car - are looking for buyers and expeditors for permanent employment. Candidates should have business or engineering technology courses or related experience in this field. Applications should be submitted immediately. Interviews will be held early in April. Contact the SPO for more details.

Weyerhaeuser Canada Ltd. - of Kamloops, B.C. are accepting applications from graduating Forestry students for their woods operation department. Contact the SPO immediately for further details.

Dominion Life Assurance Co. have a permanent opening for graduating B.A., M.B.A., B. Comm., or Diploma Program graduates interested in a Life Insurance career. Contact the SPO immediately for further details.

Wanted!! - Commissioned Sales People to sell Micro-Wave Ovens. If you are interested please contact the SPO for further details.

Ministry of Natural Resources - White River are accepting applications from Forestry students for various positions. Contact the SPO for job descriptions and further information. There are also tree planting positions available. Interviews will be held the 1st week in April.

Ministry of Natural Resources - Manitowadge have a position as a Unit Fire Crew Boss available. Interested forestry students should contact the SPO immediately.

Ministry of Natural Resources - Dryden have one or two Aerial Fire Detection Observer positions available. Contact the SPO immediately for details.

A.G. Blight a Forestry Consultant operating out of Hearst is accepting applications from 3rd yr. Forestry Degree students (2nd yr. students with cruising experience will be considered) for summer employment. Contact the SPO for further details.

Ministry of Natural Resources - Manitowadge are accepting applications for tree planters/cone pickers. Deadline for applying is April 8th. Interviews will be held on April 9th.

Sandy Beach Lodge - There are summer positions available from May 10 - Sept. 10. The lodge is located at Trout Lake. Interested students should contact the SPO immediately for further details.

The Department of Industry and Tourism have summer employment opportunities available at Pigeon River. The positions are Tourist Counsellors. Use of a car is essential. Contact the SPO immediately.

Note:

Ontario Experience 74 (Summer) - Employment opportunities with the Ontario Government are now available. For further information pick up a brochure and application forms at the SPO.

STUDENTS PLEASE NOTE:

The Canada Manpower Centre for Students for the Thunder Bay Area will be located this summer at the Lutheran House which is located next to the Field House. Our office will be set up there as of April 5, 1974.

Nursing at Lakehead



MICHAEL WINDER

Today the practice of nursing and the education of nurses are going through some pretty exciting changes. At university, student nurses are using video tape to improve their method of diagnosis, taking courses in philosophy and going to remote nursing stations to experience health care in a different environment. In practice, nurses are beginning to leave the confines of the hospital to work in Community Health Centres; they are making better use of computers and are helping to relieve the doctors of some of their more repetitive and time-consuming tasks. This article will attempt to show how the education of a nurse today is preparing her for some of the new concepts in the nursing profession.

In the medical profession today it is generally felt that the nurse can better serve the community by working in the community rather than in the hospital. One of the first steps in this direction would be the licensing of all nurses, a move which would give them the flexibility to break away from the structure that has to exist in a hospital. With this freedom, more nurses will be going to Community Health Centres where, in a decade or so, about eighty percent of all practicing nurses will find themselves. The Hastings Reports, which supports this concept of Community Health Centres, defines them as "...an organization and service concept and a financial and administrative integration of resources to help people to deal humanly and rationally with one another, both receiving and providing health services. It recognizes and gives form to the dynamic interaction necessary between the helper and the helped. It promotes personal and community responsibility." What this means to the patient is that in future instead of becoming accustomed to the "Family Doctor" making the routine check-up in a hospital, he will become accustomed to the "Family Nurse" visiting him in his home.

Nurses will do this when people are sick but more importantly they will do it when people are not sick. These visits will be part of a preventative health care pro-

gram in which the nurse is the teacher. For example, the nurse will talk to young mothers and help them adjust to their pregnancy. They will talk about the mother's nutrition and how it affects the health of her child. They will involve the husband, answering his questions and showing him what he can do to help his wife. Nurses will also be helping families to cope with the prolonged sickness of a member of the family, teaching them to assist that person in recovery.

Since the Community Health Concept involves the whole spectrum of the medical profession, teamwork becomes a crucial factor in its success. Without teamwork, for example, an occupational therapist could prescribe an exercise for a patient's broken leg not realizing that the patient might have a weak heart. Although the chances of something like that occurring are slim, the possibility does exist if the communication between the doctor and the therapist is poor. The same holds true for doctors and nurses, especially if nurses are to take over some of the doctors more routine tasks. Communication, then is an essential part of the Community Health Care System.

Another important part of nursing is the quality of education offered to nurses. At the present time there are three levels of nursing: two offered at Community Colleges and one at Universities. At the Community Colleges students have a choice. They can take a 10 month course to become a Registered Nursing Assistant or, they can take a 2 year programme which will give them their R. N. However, if a nurse expects to work in the community the 2 year programme would not prepare her sufficiently to teach preventative health care. This means that if a person wishes to work in the community she should attend a university. It can be seen right away then that before the nursing profession can become an integral part of the Community Concept the education of nurses should be clearly divided into three distinct levels. These levels would closely follow the programmes offered at both Community Col-

leges and Universities. The first level would be the R. N. A. The men and women who will be R. N. A.'s will almost exclusively be working in the hospital environment. They will be working along side the nurses from the Community Colleges. These nurses will also be working in the hospital situation. The third level will be the University graduate. This nurse will not only have the technical skill but, also, the broader understanding of people which will make her better suited for work in the Community. The type of education that a nurse or nursing assistant receives is important as it will govern, to a large degree, whether or not that person will work in the hospital or in the Community.

It is obvious then that if there are to be changes in the nursing profession, the educational programmes must also make changes. Traditionally, nurses were trained in a 3 year programme, closely affiliated to a hospital and heavily subsidized by the government. Since 1965, this form of education has been phased out and replaced with a 2 year course under the direction of the Community Colleges. To achieve the goals of the nursing future however, the emphasis must shift from the 2 year level to the baccalaureate level where students are taught more than just the basic standards required for registration as a nurse. As most people are aware of the capabilities of graduates from the 2 year programme, a close look at the Lakehead University School of Nursing will enable one to see the means of achieving some of the aims of nursing.

In talking with some of the Nursing Faculty at Lakehead University it became obvious that they are changing their programme to meet the requirements of the future. Miss Wallington, Chairman of the department, has said that "If the University is going to be responsible for preparing the nurse for work in the community then we must organize more affiliations with health care systems in the community rather than in the hospitals."

To teach nursing at the Baccalaureate level, a good percentage of the staff should be at the Master's Level. At Lakehead University 50% of the faculty have not only their Master's, but also a good deal of experience in both the practice and teaching of nursing. Mrs. Allen of the nursing faculty sees the role of the teacher as "always making the students reach by setting goals that are hard yet giving them reinforcement along the way. The teacher must create opportunities for the students to try new methods, to explore and to learn". The basic standards for an R.N. are 450 hours of theory and 1200 hours clinical experience. With a four year programme, students are easily capable of reaching those standards and surpassing them. The students are given a broad base in nursing, as well as Chemistry, Sociology, Business Administrative practices, Principles of Teaching and Evaluation and Philosophy, course which time does not allow in the two year programme.

Teaching, as a method of community health care, will become more important in the next year and so an essential part of any University Nursing Programme has to be the principles of teaching. To develop these skills, students are being taught with the aid of audio-visual equipment and on-campus classrooms. The audio-visual equipment is used so the student nurse can evaluate her interactions with the patient and her methods of teaching. An On-campus classroom is relatively new method used by the nursing faculty at Lakehead. The purpose here is to allow the nurses to watch a grade two or three class, unob-

cont'd.

Nursing cont'd

served, through a one-way glass wall. To help in their understanding of normal child behaviour, the nurses must prepare a critique on what they saw and present it to their classmates. Change will play a large part in the career of a nurse today, so the nurse must be prepared to accept it as a natural phenomenon. As part of that preparation at Lakehead University, the student will see the teacher in a different role. Besides the usual routine of seminars and lectures, on basic data, the teacher's main role will become that of a **resource person and advisor**. The student will be left mostly on her own. This type of learning encourages new ideas and means of practising and teaching nursing. With this sense of responsibility placed on the student early in her nursing education, she will be better able to develop or adapt to new ideas.

An important role for the teacher today is the importance of making courses interesting. If properly motivated, students will be encouraged to look further into a topic and hence benefit themselves for the future. To inspire this ambition at Lakehead University, a number of community-oriented courses are made available to the student. A family study course is offered in which a student follows a mother in her last month of pregnancy and after the birth. She also interacts with the mother of an



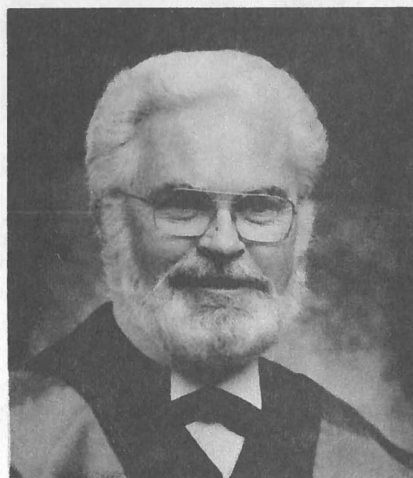
MICHAEL WINDER

asthma victim to understand fully, the problem that exists for both the mother and the child. To make the student aware of the importance of teamwork, she visits the Crippled Childrens Society to see both Physio and Occupation Therapy used in the treatment of handicapped children.

In the future, at Lakehead, community involvement, as part of the educational programme, will increase as the Faculty does with more research, workshops and clinics being available to the public. At the present there are no definite plans for a Master's programme, but as the demand for more and better skilled nurses increases, such a course will be started. More and more nurses are becoming aware of the changes occurring in their profession today and are going back to university to increase their understanding and update their practices. With this post-diploma course available at Lakehead, nurses are given credit for their experience and offered the opportunity of preparing themselves for the time when 80-90% of nurses will be working in the community. Because of the degree of knowledge and variety of experience of the faculty, Lakehead provides a well balanced preparation for a future in nursing.

The 'new nurse' will be one who is prepared, at the University Level, to work as a member of a health team, working closely with families in sickness and in health, moving freely between the hospital and the community. She will not replace the medical practitioner, but will be more qualified to assist in pre-diagnoses thus relieving the doctor of routine tasks. She will be familiar with new technological advances that will increase her capabilities but she will not sacrifice her personal contact with the patient in the face of this advancing technology. In her day Miss Nightingale's conception of a nurse was considered 'visionary and beyond all hope of realization'. Many people today feel the same way about the changes in store for nursing, but the evidence is too positive, too strong to suggest anything else for the near future.

Mr. McLeod Receives Ph.D.



Gordon D. McLeod, Director of Residence and an Assistant Professor in the Department of English at Lakehead University for the past five years will receive the Doctor of Philosophy Degree in English from the University of Manitoba on May 23rd at the Spring Convocation. Mr. McLeod received the Bachelor of Arts degree from the University of Toronto with First Class Honours. At that time he was awarded the Victoria College Regent's Gold Medal, the Jennie Isobel Coulter Scholarship, and the Lily Denton Keys Prize. This prize is awarded annually at the University of Toronto for the best essay submitted on the subject of the Modern Novel. Mr. McLeod's essay concerned the works of Virginia Woolf. Following graduation from the University of Toronto Mr. McLeod taught at Ridley College, St. Catharines, Ontario, for fourteen years. When he left Ridley he was Chairman of the English Department and a Housemaster. While teaching at Ridley College he completed the requirements to graduate from the Ontario College of Education and also completed most of the course work for the Master of Arts Degree in the School of Graduate Studies at the University of Toronto. He later transferred these credits to the University of Manitoba where he began his research on Canadian Fiction. Mr. McLeod was the first person to do extensive research on the papers of Frederick Philip Grove. This work led to his M. A. thesis, *The Primeval Element In The Prairie Novels Of Freder-*

ick Philip Grove. His later research has resulted in his Ph. D. Thesis, *A Descriptive Bibliography Of Canadian Prairie Novels For Adults 1871-1970*. This thesis contains the results of Mr. McLeod's biographical research on 89 Canadian prairie novelists and bibliographical research on 185 Canadian prairie novels. Immediately before coming to Lakehead University, Mr. McLeod was Chairman of the English Department at St. John's-Ravenscourt School in Winnipeg and also lectured at the University of Manitoba in Canadian Literature. In 1971 he was Visiting Professor of Canadian Literature at the University of Marburg, Germany. Mr. McLeod was born in Sault Ste. Marie and received his early education in that city. His maternal great-grandparents and his paternal grandparents were among the pioneer settlers in the Bruce Mines area east of Sault Ste. Marie.

Indian Teacher Education

Several weeks ago Dr. Angus, Dean of the Faculty of Education, met with representatives from a number of local bands. Dr. Angus set the meeting up to look into the criteria for organizing an Indian Teacher Education Programme. Some of the representatives were Cecil Finlayson from Long Lac, Raymond Ningewance from Lac Seul, Shiela and Roy Michano from Heron Bay and Terry Perrault from Fort Frances. One of the prime objectives of this first meeting was to find a suitable candidate to be the planning specialist. Roy Michano felt that this person should be a local Indian who could speak fluently in the native tongue. Once chosen this person would start immediately to investigate the problems of education for the native peoples. He would talk to the officials at the reservations, the high school teachers and councilors and most importantly the parents and children. Eventually he would piece together a report on his findings and make recommendations to the advisory committee. One point that Roy Michano would like to see implemented is the construction of an all-Indian High School with Indian Teachers and Councilors. He felt that this situation would put Indian children at ease and not make them feel ashamed of their cultural background.

Both Dr. Angus and the Indian representatives said that they were grateful to the Donner Foundation for sponsoring this project and that they were very optimistic in being able to achieve the aspirations of many of the Indians in North-Western Ontario.

N.C.R. GRANTS Cont'd. from page one

Mathematics Dept.	0.	2,800	3rd of 3
M.H. Hawton			
Mathematics	0.	1,500	1st of 3
I.M. Hoodless			
Chemistry Dept.	0.	5,000	1st of 3
W.J. Keeler			
Physics Dept.	0.	7,000	1st of 3
C.F. Kent			
Mathematics Dept.	0.	1,100	1st of 3
M.W. Lankester			
Biology Dept.	0.	5,000	2nd of 3
P.F. Mah			
Mathematics	0.	500	3rd of 3
S. Naimpally			
Mathematics Dept.	0.	6,000	3rd of 3
V.V. Paranjape			
Physics	0.	9,500	1st of 3
R.G. Rosehart			
Chemical Eng.	0.	5,000	1st of 3
R.A. Ross			
Chemistry	0.	14,000	1st of 3
L.K. Roy			
Mathematics	0.	500	3rd of 3
J.P. Ryder			
Biology Dept.	0.	6,000	2nd of 3
K.P. Satinder			
Psychology Dept.	0.	4,500	1st of 3
S. Walker			
Chemistry Dept.	0.	15,000	2nd of 3
J.H.M. Whitfield			
Mathematics Dept.	0.	1,100	1st of 3

ONE YEAR GRANTS

A.D. Booth			
Physics	0.	14,000	
J. Crossley			
Chemistry	0.	9,000	
J.M. Franklin			
Geology Dept.	0.	6,150	
R. Freitag			
Biology Dept.	T.F.	\$ 5,000	
D.G. Frood			
Physics	0.	5,000	
G.H. Harvais			
Biology Dept.	0.	3,500	
J.W.L. Hastings			
Physics	0.	3,000	
D.G. Holah			
Chemistry	0.	6,000	
A.N. Hughes			
Chemistry	0.	6,000	
M.M. Kehlenbeck			
Geology Dept.	0.	4,225	
A.D. MacDonald			
Biology Dept.	0.	5,000	
R.H. Mitchell			
Geology Dept.	0.	5,600	
G. Murray			
Forestry Dept.	0.	4,000	
S. Navratil			
Forestry Dept.	0.	4,000	
J.C. Warkentin			
Mathematics Dept.	0.	2,500	
N.A. Weir			
Chemistry Dept.	0.	8,000	

I.B.M. Grant to Mathematics Department

The Department of Mathematical Sciences at Lakehead University is offering this year a course "Creative Mathematics". The course, Mathematics 0160, was first given in 1971-72, and is aimed at high school students of exceptional mathematical ability. The cost of this year's program, as in 1971-72, is borne by a generous grant from IBM Canada Ltd. which provides tuition payments for selected "IBM Scholars" in Mathematics 0160,

and students receive one university course credit for successful completion.

Cont'd. on back page

Student Art Show

Lakehead University Students are putting on an Art Show. The show will be in the Aesthetics Lounge from 3:00 p.m. to 5:00 p.m. daily from Friday, April 5th to Wednesday, April 10th.

Massive Enrolment Increases in Biology

Professor D. R. Linsay, Chairman of the Lakehead University Biology Departments in other Canadian Universities met in Ottawa on March 21st to 24th and expressed their concern that the quality of teaching and graduate education in their departments is being threatened by increased enrolment and inadequate financial support.

During the last six years, total university enrolment in Canada increased by 30 percent, while enrolment in Biology has increased by about 140 percent. The increasing interest in Biology by Canadian students has shown little sign of diminishing.

Even during recent years, when university enrolment leveled off in the physical sciences and humanities, interest in Biology continued unabated. Universities across Canada had nearly the same total enrolment in 1971-72 and 1972-73, but in the latter year Biology enrolment still increased by 9 percent. Now, nearly one-third of all students entering Canadian colleges and universities take at least one course in the Biological Sciences.

Increasing enrolment in Biology has brought about a crisis in the teaching of Biology at the university level. Numerous solutions are being sought in order to accommodate large classes at a time of rising costs, stabilized numbers of staff, and economizing by the provinces.

In spite of the use of modern teaching techniques and the elimination of financial waste, Biology Chairmen expressed concern that these pressures will lead to the overall deterioration of the quality of Biology teaching in Canada, and that this will have an immediate and negative effect on the quality of life of Canadians. Biology is the cornerstone of many applied sciences that require extensive biological training, such as agriculture, medicine, dentistry and other health care programmes.

LIBRARY HOURS FOR EASTER WEEKEND

Good Friday
9:00 a.m. to 12:00 midnight
Saturday
9:00 a.m. to 12:00 midnight
Easter Sun.
2:00 p.m. to 12:00 midnight
Easter Mon.
9:00 a.m. to 12:00 midnight

Library Education Meeting

A meeting to discuss education for librarianship will be held in the School of Library Technology, Room L5022, in the Library Building on Thursday, April 18 at 8:00 p.m. Prof. John Marshall of the Faculty of Library Science, University of Toronto, will be present to describe the new Master of Library Science programme and answer any questions concerning library education in general.

Anyone interested in library education is invited to attend. Potential graduates who are considering a career in librarianship will be particularly welcome.

events

SACU TESTS - Saturday, April 6, 1974 - Room UC2011, All Day.

CAMBRIAN PLAYERS WORKSHOP - Saturday, April 6, 1974, UCT, 4:00 p.m. to 8:00 p.m.

L. U.S.U. VALDY CONCERT - Saturday, April 6, 1974, in Agora, 8:30, with performing artist Diamond Joe.

CAMBRIAN PLAYERS WORKSHOP - Sunday, April 7, 1974, UCT., 9:00 a.m. to 12:00 p.m.

BEER GARDEN - Thursday, April 11, 1974 - Cafeteria, 4:30 p.m. to 8:30 p.m.

THUNDER BAY SYMPHONY CHAMBER MUSIC CONCERT - Sunday, April 21, 1974 - Faculty of Education Auditorium, 7:00 p.m. to 10:30 p.m.

MEETING of the Educational Committee of the Technical Section of the Canadian Pulp and Paper Association, Tuesday, April 23, 1974, in Little Dining Room, 9:00 a.m. to 5:00 p.m.

GRADUATE RECORD EXAMS - Saturday, April 27, 1974, Senate Chamber, at 9:30 a.m.

ENGINEERING SEMINAR
Automating The New
Generation of Railroads
Research and Development
In British Railways

SPEAKER: Edward Gelbstein
Senior Principal
Scientific Officer
British Railways.

TIME: 4:00 p.m.

ROOM: RB1022

DATE: Wednesday, April 17, 1974

IBM GRANT Cont'd. from page three

Creative Mathematics introduces its students to the processes that underlie mathematical creation, by student participation in the discovery of mathematical truths from new and exciting branches of mathematics. It starts with very intuitive reasoning, and many examples, to lead the student toward a general, formal, mathematical treatment by synthesizing his observations about the special cases. The teaching method is Socratic, or the asking of leading questions, to cause the student to progress from simple to more complex constructions and, hopefully, to a final general case.

The precise topics of the course are not as important as the method the students are encouraged to develop, and topics change each time the course is given. A sampling of this year's topics are; Boolean Algebra, which underlies set theory and the design of computer circuits; Computability, which has applications both to computing machines and abstract mathematics; Nearness Geometry, which replaces traditional ideas of limits and continuity in the calculus; and Probability, which is the mathematical science behind statistics, the treatment of experimental data from any field of science or social science.

University Bookstore Used Book Buy-Back

As in previous years, the Lakehead University Bookstore will hold a Textbook Buy-Back starting April 16th. Any textbooks in good and re-usable condition (except those going into new editions) which are on the list of texts to be used again in the 1974-75 academic year will be bought back at 50% of the original cost to the owner. This usually means 50% of the publisher's price, but in case of books which were purchased as Used Books, it is 50% of the Used Book price paid by the student. This is an opportunity to turn textbooks you no longer require into cash!

Arrangements have been made with the Follett College Book Co. to come on campus on April 24th and 25th to buy back many other texts which will NOT be used

again on campus next year, although the prices paid will generally be lower than the 50% paid by the L. U. Bookstore. All books bought by the Follett Co. will be shipped off-campus, while the books bought by the L. U. Bookstore will remain and be resold at 75% of the original purchase price, thus providing a substantial saving in textbook costs to next year's students.

The Bookstore buy-back will continue from April 16th until May 31st, Monday through Friday from 9:00 - 12:00 and from 1:00 - 5:00 p.m., while the Follett buy-back will be held on Wednesday and Thursday, April 24th and 25th ONLY. The L. U. buy-back will be suspended on May 1st, 2nd and 3rd, when the Bookstore will be closed for its annual inventory.

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