

# NEWS BULLETIN

UNIVERSITY OF GUELPH



*Professor Hilton supervises planting.*

## Arboretum growth

A L.I.P. grant awarded to the University of Guelph Arboretum has been helpful in bringing phase one of the arboretum development closer to completion. The improvement of arboretum woodlands is the aim of the project, which will have employed up to seven workers by the end of May.

Many of the dead elms on the arboretum site have now been felled. These are sawn into smaller pieces and left in piles in low-lying forest areas where they will rot fairly readily. In the meantime these log piles are an ideal habitat for pheasants, grouse and other small forest animals. The remaining dead elms must be left standing until dryer weather since abnormally high spring water levels in the swamps now render them inaccessible.

The grant also covers some of the cost of planting trees and shrubs in the arboretum nursery. Many are brought in from the wild, while some are imported as plants, cuttings or seeds. This transplantation is actually beneficial to the plants, whose root systems develop added fibre as a result of the move.

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*Forklift lowers conifer into prepared position.*

## Health spa for young trees

Anyone who has impatiently prodded a toothpick of a deciduous nursery specimen into maturity will envy the hundreds of healthy, thriving trees at the University nursery. Soaking up the grounds crew's tender loving care and protection from insects, disease and pests, the young trees can add up to a half inch to their trunk diameter annually. The 15 acre University nursery at the corner of Stone and Victoria roads now contains about 3000 deciduous trees of 200 different varieties and cultivars.

Most of the current specimens are slated for transplanting near one of the buildings now under construction, or along the ring roads, connector roads or the pedestrian spines. Working many years in advance of construction, grounds personnel purchase young trees from commercial outlets or move naturally growing specimens from bush areas and plant them in the nursery. There, the trees grow to a size hardy enough to withstand the abuses of traffic and people on the main campus. After five or six years in the nursery, a tree really looks like a tree — none of these scrawny toothpicks that home gardeners plant.

By the time the last bricks go onto a new building, the landscaping seems almost "instant" . . . laying sod and transplanting trees from the nursery. Because of the tree supply in the nursery, campus buildings never have the "bald," just finished look.

The nursery was started in the spring of 1966 specifically to raise trees in accordance to the master development plan. Not surprisingly, many of the trees are honey locust (*Gleditsia triacanthos*) and sugar maple (*Acer saccharum*), which will line the major pedestrian spines.

The collection also includes 14 varieties of flowering crabapples, which will eventually be planted along connector roads.

When young trees come into the nursery, they generally have a 1" diameter (or, more correctly, 1" caliper) trunk. After the standard five to six years of pampered nursery existence, the young trees could have a 5" caliper trunk and measure 15' in height. After the tree grows to at least a 2½" caliper, it is ready to be moved to the intended location on campus.

By the fall of 1974, the nursery will have supplied about 1000 mature trees, including those around the East Residence, Engineering, Landscape Architecture, Laboratory Animal building, Physical Education II, the University Centre and Married Student Housing.

In addition to these major landscaping jobs, handled by private contractors, the grounds crew relocates or replaces 200 to 300 trees annually, and often stages demonstrations of the technique to Landscape Architecture and Horticulture classes.

Originally trees for the nursery were purchased from commercial growers. Today, only a few exotic and rare varieties are purchased, while native trees are transplanted from natural bush areas or are grown from seed in the nursery facilities.

The nursery contains mostly deciduous trees. A saving of 25% - 50% can be realized on each of these trees grown to maturity in the nursery and in addition, the quality of the mature trees is much higher and more uniform. Conifers and shrubs, on the other hand, grow much more quickly, and are less expensive to purchase from commercial dealers.

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**WELCOME UNIVERSITY OF GUELPH FRESHMEN!**

# REPORT FROM SENATE

## April 17, 1973 Meeting

The Division of Drama became the Department of Drama on a motion by Drama Professor Michael Booth, at the Senate meeting Tuesday.

Although the brief on separate departmental status for drama was to be referred to the Committee on Academic Priorities for a report back to Senate in June, Professor Booth pointed out that there were actually no academic priorities to be considered, no new faculty or space allocations requested, and that in fact the division had been operating separately for some time. Drama became largely autonomous in 1970 when it began to administer its own budget, and its own F.S.E./F.T.E. ratio, with new appointments calculated on this basis, he said.

The report presented to Senate pointed out that areas of teaching and research in Drama and English are generally separate except in the common area of dramatic literature, and that faculty of both sections of the English Department were in favor of the change. Professor A. M. Ross said the English faculty had on two occasions agreed unanimously that the change would be a good one.

### Establish 6 week semester

A six week summer semester aimed specifically at high school teachers was also approved by Senate. The six week session, that would begin a three year trial period in a year's time, would offer undergraduate courses for which there has been a demand, largely from high school home economics teachers.

All proposals for courses offered in the summer session would have to be approved by the Board of Undergraduate Studies, and no students enrolled in the regular Spring Semester could take the six-week courses. Dean Janet Wardlaw of the College of Family and Consumer Studies pointed out that the demand has been largely for senior courses for teachers with Type A certificates who want to update their qualifications, and for teachers who want to upgrade their teaching certificates or begin graduate studies. The courses required by this type of student, she said, would not overlap with the present Spring Semester courses which are mainly introductory.

Also approved at the meeting was a change of degree designation from B.Sc. (P.E.) to B.Sc. (H.K.) effective in the spring of 1975.

### Three semester study

Professor J. D. Hundleby introduced the discussion on the first report on the three semester system at Guelph. The report covers the benefits and shortcomings of the system with tables and survey results in a separate appendix. Professor D.A.L. Auld, Economics, who was research director of the committee

that initiated the evaluation, answered questions on the report.

It was decided that since the report is as yet incomplete (a later section will deal with financial implications of the three semester system), the short printing ordered would be sufficient for the present. Copies are available in the office of the Secretary of Senate and in the library. The report was referred to the Executive Committee of Senate for review. When the committee determines what action is required, the report will be referred to the appropriate bodies of Senate.

### Awards discussion

A semantic discussion on the new awards brought to Senate for approval took up some time, in a discussion over the differences in the meaning of scholarship and award. In the end three of the awards were referred back to the Awards Committee, while the other new and revised awards were approved.

### COU report

Professor Norma Bowen, the faculty representative to COU, expressed the concern that CUA is showing on the length of time the graduate program assessments are taking, as well as the length of time it takes to carry out the recommendations.

## MOTIONS

### Report on the organization of the academic year

. Senate approved the referral of the report on the three semester system at Guelph to the Executive Committee of Senate.

### Executive Committee

. Senate approved a motion that the brief on separate departmental status for Drama be approved.

### Striking Committee

. The following nominations to standing boards, committees were approved: Committee on Teaching and Learning, J. D. Hundleby to replace P. K. Leppmann, D. C. Tulloch; Striking Committee: D. C. Jordan to replace G. W. Anderson; F. Vaughan to replace J. F. Melby; Bookstore Management Advisory Committee: R. S. Downey to replace P. W. Pennock; Special Committee of Senate: faculty members: C. L. Gyles, A. G. Hoffman, I. L. Nonnecke, R. E. Subden, M. E. Waterston; alumnus member, J. Bandeen; undergraduate student members, J. A. Chandler, C. Ellis, B. A. Johnson; graduate student members: C. L. Hiseler and one other to be appointed.

### Board of Undergraduate Studies

. Senate approved the motions put forward by the Board in its proposal for a six week

summer session, namely that certain undergraduate courses be offered in a six week session to be conducted in the latter part of the Spring Semester, that all proposals for courses be submitted to the Board of Undergraduate Studies for approval, that a student may not enroll in more than two courses in a summer session and may not enroll simultaneously in the Spring Semester and summer session and finally that the offering of the courses be on a trial basis for a three year period from the summer of 1974.

- . Senate approved the change of degree designation from B.Sc. (P.E.) to B.Sc.(H.K.) effective for the graduating class in the spring of 1975.

- . Revised policy on prerequisites recommended by the STARCS sub/committee was accepted by the Board. Prerequisites shall normally be listed only by numerical identification of the course with the addition of the phrase "or equivalent" if necessary. Acceptable exceptions are: (1) prerequisites based on some recorded standard external to the University or (2) prerequisites of a general nature when departments may state the number rather than stating specific course numbers, e.g. 2 courses in Biological Science.
- . Senate approved a number of course changes in the Colleges of Arts, Biological Science and Physical Science.

### Board of Graduate Studies

- . The following graduate faculty additions were approved: A. M. Fuller, Ph.D., Assistant Professor, Geography; D. Steiner, Ph.D., Professor, Waterloo, Geography associated.
- . Senate approved a new graduate course in Family Studies, theories of child development, and a replacement graduate course in Biological Science where cardiovascular pathophysiology is being replaced by experimental microscopy.

### Committee on Awards

- . Senate approved three new awards: University of Guelph Graduate Scholarships (which come from the interest on the University's endowment fund), UCO scholarship and the Canadian Society of Animal Science Prize as well as two revised awards: the W.J.R. Fowler Prize and the Ontario Agricultural College International Studies Scholarships. Three other awards were referred back to committee for a clearer definition of terminology.

### Audio-Visual Committee

- . The recommended revisions to pricing policy and cost recovery for Audio-Visual Services were referred back to committee for clarification.
- . Senate received the report on media equipment movement by Audio-Visual Services from January 8 – February 25, 1973.

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## Arboretum

About 1200 species, strains and cultivars (cultivated varieties) of native and related exotic trees have now been collected. Later these will be moved to permanent collection sites throughout the arboretum. Some of the top priority collections, including the maple planting directly opposite the Arboretum Service Building, the birch family and the willow-poplar group, have now been completed.

If time allows, work will also begin on the clearing of nature trails. Plank bridges will have to be constructed to cross the swampy area south of the seal ponds and in the naturally wooded sites south of Stone Road.

Several other arboretum projects have also been completed recently. A small greenhouse, financed by a donation from Paul Fisher, a 1911 graduate of OAC, has been built near the new nursery on College Avenue. This is now in full use for the propagation of woody plants, which are also destined for the collections.

A "rhizotron," named and designed by Professor Hilton, director of the arboretum, has also been built. This is an underground gallery used for the observation of root development and has been financed through National Research Council grants.

The hill where the Arboretum Centre will be constructed has been scraped in preparation for the building. The Centre, which will be located at the middle of the 330-acre arboretum site, will include conference and laboratory space as well as administrative offices. Credit for the primary support must go to the O.A.C. Alumni, and the building will be known as the OAC Centennial Arboretum Centre.

Progress has also been made on an experiment in rehabilitation involving gravel pits on the corner of Victoria and Stone Roads. These have now been filled in and will later be planted with black locusts, which should grow well in the rubbly soil.

The arboretum, initiated in 1970, is still in its first phase of development which is expected to be completed by the fall of 1973. Four phases of growth should see the arboretum completed by 1985, although it will still be some years before many of the trees reach maturity, and before a few of the most difficult-to-get tree and shrub species have been located and secured. Seeds and cuttings already have been obtained from eastern arboreta in Warsaw, Moscow and Alma-Ata in Kazakhstan, as well as from many better-known European and American sources.

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## Health spa

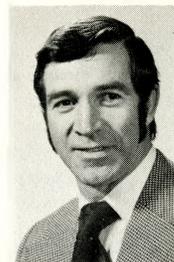
Growing 3000 trees on 10 acres does create some problems: disease and insects thrive in such a dense growth. As a preventive measure, the trees are sprayed several times a year against specific diseases and pests, such as aphids. Perhaps the major problem during the winter is rodents, which seem to take

sadistic delight in chewing their way around a tree trunk. Wrapping the trees to above the snow level provides an effective protection. The flowering crabs are wrapped to a height of six feet, not because of tall rabbits, but as protection against sun scald, a winter exposure injury.

While trees are the most visible crop at the nursery, other important plants receive the same care and attention. A two acre turf farm, for example, provides turf for small "patch-up" jobs. The 2400 square foot greenhouse provides the optimum environment for propagating the hundreds of annuals transplanted to the main campus each spring. The greenhouse also serves as convalescent home for the indoor plants (or trees) which for most of the year suffer the abuses of low humidity and warm temperatures in offices, corridors and the library. These lush tropical plants periodically spend several weeks or months on a "rest and rehabilitation" leave from their permanent posts.

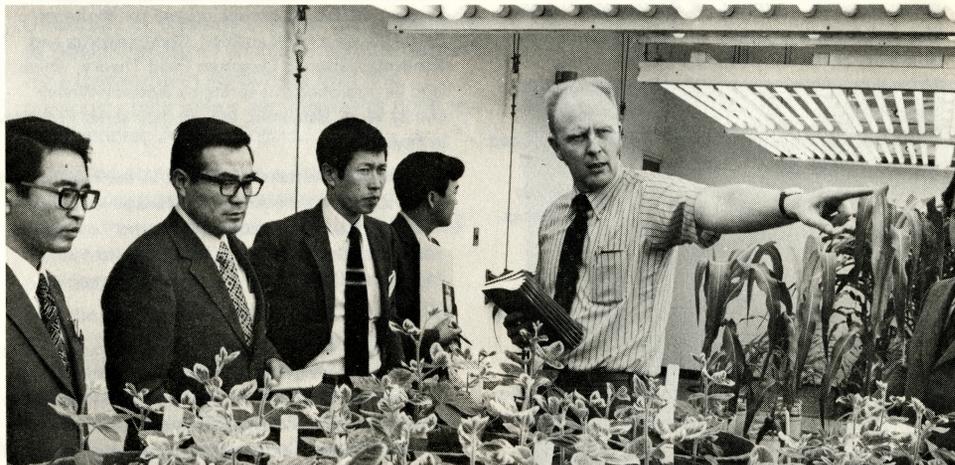
The annual spring tree-moving activities are already under way, and once again, the nursery provides the proud new specimens. You could benefit by observing the technique more than casually — the crew realizes a 95% survival rate on transplanted trees.

## Director of Residences



Allan McInnis, a chartered accountant, formerly assistant comptroller of the University, is the new Director of Residences. He was previously with a large drug manufacturing and marketing company as chief accountant, and senior analyst with a major oil company. From late 1972 until February, Mr. McInnis was comptroller of a law firm in Toronto.

For some years, he has been interested in exploring new techniques in management and staff development, and in 1972, organized an in-residence course for the University's administrative staff: "management by creativity and innovation" and initiated a talk to supervisory staff by a Consulting Psychologist on "motivation."



Professor O. E. Hatley, Crop Science, discusses field crops in a growth room with a group of visiting Japanese businessmen. In addition to touring Crop Science, they visited the Elora Research station to learn about the agricultural programs available here.



Professor M. H. M. MacKinnon, Dean of the College of Arts, presents the Alma Mater Fund scholarships to the students with the highest standing in the B. A. program. Normally the award is made to one student, but this year it was made to Donald Firth and Ursula Kleer whose records were virtually identical.

## FACULTY ACTIVITIES

**Professor D. P. Ormrod**, Horticultural Science, participated in the annual air pollution workshop at the Boyce Thompson Institute for Plant Research, Yonkers, New York, and then attended the winter meeting of the Environmental Physiology Committee of the American Society for Horticultural Science. The latter committee received a grant from the United States National Science Foundation for studies of environmental measurement and control. Professor Ormrod is the only Canadian participant in the research project which involves six universities and research stations in the United States.

**OAC Dean C. M. Switzer** spoke to students of the Arnprior High School, and later was guest speaker at the April meeting of the Ottawa Branch, University of Guelph Alumni Association.

**Professor P. W. Burke**, Environmental Biology, recently attended meetings of the Royal Agricultural Winter Fair honey and maple products committee and the food carousel committee.

**Professor J. D. Cunningham and Professor B. MacNeill**, Environmental Biology, spoke on food microbiology in quantity food handling and disease and parasite transmission through fruits and vegetables, respectively at the recent meeting of senior sanitary inspectors, Canadian Forces.

**Mrs. Judith Nasby**, Curator of Art, represented the University at the recent annual meeting of the Ontario Association of Art Galleries held at the National Gallery of Canada in Ottawa.

**Professor R. Protz**, Land Resource Science, presented a seminar on, Biogenic opal to the Faculty of Forestry, University of Toronto and more recently Professor Protz attended the annual O.I.A. meetings in Niagara Falls.

**Professor T. J. Gillespie and Professor D. M. Brown**, Land Resource Science, attended a workshop held at the Toronto International Airport Weather Office on the Agricultural weather forecast for the 1973 growing season. Participants included farmers, radio broadcasters, soils and crop specialists and meteorologists.

**Professor J. W. Ketcheson**, Land Resource Science, attended the National Conservation Tillage Conference in Des Moines, Iowa. Professor Ketcheson reports there is a definite trend to tillage systems which leave more of the crop residues on the soil surface for both water and wind erosion control.

**Professor R. W. Irwin**, Engineering, was in Lindsay to conduct the Drainage Commissioners' School sponsored by the School of Engineering for municipal officials.

**Professor W. Stanford Reid**, History, attended the spring meeting of the American Society of Church History held in Williamsburgh, Va. He was appointed at that time chairman of the arrangements committee to prepare for the spring meeting of the society which will be held in Toronto in 1975.

**Professor Trevor Dickinson**, Engineering, accompanied by Dr. Richard Douglas, spend a week in the Kananaskis Valley, west of Calgary, participating in the annual snow survey of the Marmot Creek Experimental Basin situated between 5,000 and 9,000 feet on the eastern slopes of the Rockies.

**Professor H. C. Driver and G. C. Robertson**, Agricultural Economics and Extension Education, attended the annual meeting of the Ontario Institute of Agrologists in Niagara Falls. Professor Driver delivered a talk on, The role of the computer in farm decision making — linear programming, and Mr. Robertson provided an APL demonstration of the use of LP.

**Professor E. C. Gray**, Agricultural Economics and Extension Education, attended the report-drafting session on the Regional Working Group on Education of the Man and Resources Conference Program in Toronto.

**Professor R. S. Rodd**, Agricultural Economics and Extension Education, spoke in Clinton, at the Huron Land Use Conference, Planning for the Future, providing the Conference Summary and presenting recommendations to the audience of 200 at the conclusion of the day-long meeting. Professor Rodd also spoke to the Halton Soil and Crop Improvement Association on, Planning problems in rural land use in Southern Ontario.

**Professor G. Leibbrandt**, Mathematics and Statistics, who is on study leave for two semesters at the International Centre for Theoretical Physics, Trieste, Italy, was invited by Professor Caianiello to visit the University of Salerno. While there he gave a lecture to faculty and graduate students on, Dimensional regularization in quantum gravity. Professor Leibbrandt had previously worked for Professor Caianiello on a book entitled, Combinatorics and Renormalization in Quantum Field Theory, which is to be published this spring by Addison-Wesley and by W. A. Benjamin, Inc., in their series Frontiers in Physics.

**Sheelagh D. Whittaker**, Assistant to the Provost, was a guest speaker at the American Management Association's seminar, Management Skills and Techniques, special session for women supervisors held in Montreal. The topic of the speech was problem solving.

**Professor F. H. Theakston**, Engineering, attended the National Prayer Breakfast held by the House of Commons and Senate in Ottawa with representatives of 41 countries. Professor Theakston also spoke to the 1st National Conference on Snow and Ice control, Roads and Transportation Association of Canada held in Ottawa. His topic: Snow control on highways by model analysis.

**Dr. Mark Waldron**, Director, Office of Continuing Education, has been elected to the executive of the Canadian Association of Departments of Extension and Summer Schools and appointed as Chairman of the Research Committee. Dr. Waldron has also been elected to the executive of the Ontario Council for University Continuing Education.

**Professor I. P. Martini**, Land Resource Science, presented a seminar on the Wasaga Beach project at the Quaternary Discussion Group of the University of Waterloo; attended a meeting of The Great Lakes Stratigraphic Committee at the University of Western Ontario; and with **Professor M. E. Brookfield** led a field geology camp across the Central Appalachian Mountains from Ontario through New York, Pennsylvania and Maryland to the Atlantic Coast at Chesapeake Bay.

**Mrs. Margaret Beckman**, Chief Librarian, has been appointed to a three year term on the National Research Council's Advisory Board on Scientific and Technological Information.

**Dr. Mark Waldron**, Director, Office of Continuing Education, recently attended the North American Research Conference on Adult Education which was held in Montreal.

**Professor P. W. Burke and Professor M. V. Smith**, Environmental Biology, spoke at the spring meeting of the Brant District Beekeepers' Association held at St. George. George Abayo, Tadesse Haile and Tewodros Tolessa, three CIDA students taking training in beekeeping here, were special guests at the meeting.

**Professor P. S. Chisholm**, Engineering, has been appointed a spokesman for a community interest group to the Man and Environment Conference. This is a result of the CSAE Workshop here last month.

## PUBLICATIONS

Zisa, Charles, 1973. Review of *Spoken Fijian*. *American Anthropologist*: April, 1973. (Languages)

Tsai, Annie H., Patricia M. Harney, 1973. Megasporegenesis and megagametogenesis in *Pelargonium X hortorum*. *Can. J. Bot.* 51: 607-612. (Horticultural Science and Botany and Genetics)

Platonow, H. and N. Y. Chen, 1973. Transplacental transfer of polychlorinated biphenyls (Aroclor 1254) in a cow. *The Veterinary Record*: 69-70, January 20. (Biomedical Sciences)

Barclay, R. S. and W. C. Winegard, 1973. *Interface instability in the Pb-Cd eutectic due to tin additions*. TN. 303, *Journal of the Institute of Metals*, Feb. 1973, p. 61-62.

Vaughan, F., 1972. Emmett Matthew Hall: The Activist As Justice, *Osgoode Hall Law Journal*, October 1972, Vol. 10, No. 2, pp. 411-428. (Political Studies)

Jofriet, J. C., 1973. Short term deflections of concrete flat plates. *Structural J. of A.S.C.E.* Vol. 99 ST1. (Engineering)

Leatherland, J. F. and D. M. Ensor, 1973. Activity of autotransplanted pituitary glands in goldfish, *Carassius auratus L.*, maintained in different ambient salinities. *Can. J. of Zool.* Vol. 51. No. 2. pp. 225-235. (Zoology)

Terhune, J. M., and K. Ronald, 1973. Some hooded seal (*Cystophora cristata*) sounds in March. *Can. J. of Zool.* Vol. 51. No. 3. pp. 319-321. (Zoology)

Ko, R. C., 1973. The larva of *Ixodes cookei* (Acarina: Ixodidae). *Can. Entom.* 105: 245-248. (Zoology)

Snell, J. G., 1973. H. H. Emmons, Detroit's Agent in Canadian-American Relations, 1864-1866. *Michigan History*, LVI (Winter, 1972), pp. 302-318. (History)

Carlton, R. A. M., 1972. Sociology in the high school curriculum: a problem in cultural delay. *Interchange*, vol. 3, Nos. 2-3, 1972. pp. 178-187. (Sociology)

Carlton, R.A.M. and C.A.M. McCatty, 1973. Some social factors affecting ability to swim. *Journal of the Canadian Association for Health, Physical Education and Recreation*, Ottawa. March-April 1973, vol. 39, no. 4, pp. 3-8. (Sociology)



*Dr. R. J. Schusterman, left, and Professor Keith Ronald, Dean of the College of Biological Science listen to tapes of seal vocalizations. Dr. Schusterman who is from the Psychology Department at the University of California, is doing work on terminance vocalization and sensory perception in sea lions and aquatic mammals.*

## BA open house

The University will be sponsoring three open house days for the BA program over the next three weekends. Invitations to attend the all-day (11 a.m. to 4 p.m.) sessions have been sent to all high school students who have expressed interest in coming to Guelph this fall. Many parents, as well as teachers, are also expected to attend.

"The purpose of the Open House," says coordinator Judith Main, "is to provide a broad picture of the educational and cultural facilities here. It will also give prospective students an opportunity to ask questions and get detailed information about the Arts and Social Science programs."

On hand at the Open House will be members of faculty, representatives from Department of Residences, the Registrar's Office, and students now enrolled at the University. Guides will be available to take the prospective students and their families on tours of the Arts building and the Library.

The Open House Days have been scheduled to coincide with the Guelph Spring Festival so that Festival visitors may get an appreciation for some of the cultural events that are an essential part of the University and its educational environment.

Dates of the Open House Days — all Saturdays — are April 28, May 5 and May 12, from 11 a.m. to 4 p.m. The meeting place is the Red Lounge in the Arts building.

## Administrative services reorganized

Administrative Services has been reorganized under the direction of Peter Clark, to oversee all food services, in addition to its other responsibilities. The University takes over the food services on May 1. The new responsibilities include special events and banquets, internal telephone and mail, parking and linen services, property management, central purchasing, and central duplicating and microfilm services.

The administration of these activities has been assigned to E. J. Boland, Assistant Director — Operations; Dr. R. Dyson, Assistant Director — Purchasing, and G. H. Mann, Director of Food Services.

Mr. Boland is responsible for parking, linen and laundry services, telephone and mail facilities, and the leasing and maintenance of University-owned houses. Mr. Boland will also act as project leader in carrying out feasibility studies that fall within the jurisdiction of Administrative Services.

Previously Director of Residences at the University, Mr. Boland has an MBA from the University of Western Ontario. Before coming to Guelph he was in charge of administration for a management consulting firm and previously held senior administrative posts in the Canadian Armed Forces.

As Assistant Director — Purchasing, Mr. Dyson is responsible for soliciting bids for all the University's purchases with the exception of major building contracts. He also oversees stationery and laboratory storage, and the sale of obsolete material and equipment. In addition, he is responsible for central duplicating and printing operations, microfilming of university records, and the administration of sales tax and duty related to University purchases.

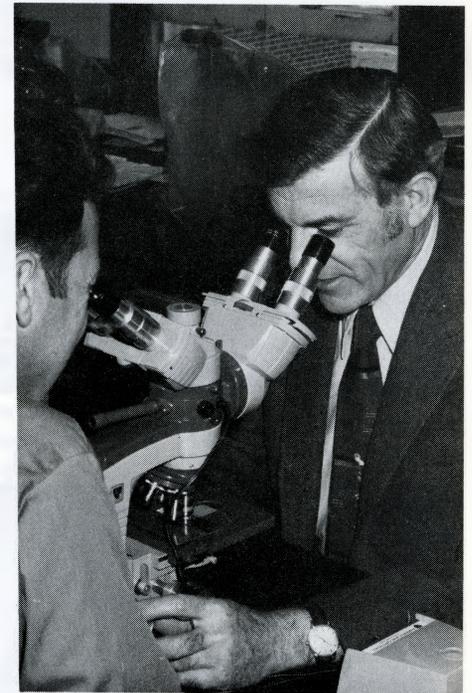
Mr. Dyson was Purchasing Agent in Administrative Services before assuming his present position.

Mr. Mann and his staff will be directly responsible for the preparation and distribution of food at nine outlets including the Faculty Club. That number will increase with the completion of the University Centre, about one-third of which will be devoted to food distribution of one sort or another. The Centre will include a 950 seat main cafeteria, a 250 seat pub, a licensed dining room, Faculty Club, graduate students lounge, and meeting rooms.

Before becoming Director of Food Services, Mr. Mann was Assistant Director, Administrative Services. After attending Leeds University, England, he served in the Indian Army. He has had over 25 years of experience in institutional catering and hotel management in Canada, Northern Ireland, and his native England.



*Visiting Professor M. Ingram of the Meat Research Institute at the University of Bristol is shown seated, second from left examining rape seed sections on the scanning electron microscope in Food Science. He is flanked by Professor D. A. Barnum, Veterinary Microbiology and Immunology and Food Science Chairman J. M. deMan, both standing, and Professor D. W. Stanley, Food Science.*



*Professor J. K. Frenkel, is shown here with Dr. W. S. Bulmer, Veterinary Services, in the Pathology Department's diagnostic laboratory. Professor Frenkel, Department of Pathology and Oncology at the University of Kansas Medical Center, visited OVC recently. The research which he and his co-workers carried out on toxoplasma has been largely responsible for revealing the life cycle of the protozoan which is common in many domestic and wild animals and occasionally causes disease in man.*



Isaac Stern, Eugene Istomin and Leonard Rose will perform Brahms' piano trios at the final concert of the Guelph Spring Festival.

## Spring Festival in a nutshell

**Apr. 28** Elmer Iseler conducts the Festival Singers and Canadian Brass in the premiere of a new work by Charles Wilson and arrangements of six Canadian folk songs by Derek Healey. 8:30 p.m. St. George's Anglican Church. \$3.50 and \$5.

**Apr. 29** Menotti's opera *The Consul* is directed by Herman Geiger-Torel, conducted by Nicholas Goldschmidt and sung by a cast including Milla Andrew, Patricia Rideout, Allan Monk and Don McManus. Extra performances May 1 and 3. 8:30 p.m. Ross Hall. \$4 and \$5.50. (Students \$1 May 1 and 3.)

**May 2 to 4** An international film festival for children. May 2 at 7 p.m. May 3 and 4 at 2 p.m. War Memorial Hall. \$1.75; students \$1.25; children 50 cents.

**May 4 and 5** Juilliard String Quartet, performing the six quartets of Bartok, in two concerts. 8:30 p.m. War Memorial Hall. May 5 at 2 p.m. \$4.

**May 5** The Quebec Symphony makes its first appearance outside that province, under the direction of Pierre Dervaux, in a program featuring Ravel's *Daphnis et Chloe* and the premiere of a new work by Clermont Pepin. Ronald Turini appears as piano soloist. 8:30 p.m. Physical Education Building, University of Guelph. \$2 to \$5.50. (Students \$1.)

**May 6** Metropolitan Opera soprano Martina Arroyo presents a solo recital of arias, spirituals and songs by Brahms, Fauré and Strauss. 8:30 p.m. War Memorial Hall. \$7.50.

**May 8** Alanis Obomsawin presents an evening of Canadian Indian folklore in story and song. 8:30 p.m. War Memorial Hall. \$3.

**May 9** Canadian film day offers a program of new Canadian films, coordinated by Gerald Pratley. 2 p.m. and 8:30 p.m. Palace Theatre. \$2; students \$1.25.

**May 10** The Jest Society improvises satirically on the facts of everyday life. 8:30 p.m. War Memorial Hall. \$3.

**May 11** Monique Leyrac, internationally famous Canadian chanteuse, sings in English and French. 8:30 p.m. War Memorial Hall. \$4.50.

**May 12** A Tribute to Benjamin Britten, celebrating the English composer's 60th birthday with a program of vocal and instrumental music including two North American premieres. 8:30 p.m. St. George's Anglican Church. \$3.50 to \$5.

**May 13** Pianist Eugene Istomin, violinist Isaac Stern and cellist Leonard Rose combine their formidable talents to present the piano trios of Brahms. 8:30 p.m. War Memorial Hall. \$7.50.

**May 14** A Tribute to Edward Johnson. Jon Vickers, Canadian tenor of international fame, in a benefit for the Edward Johnson Music Foundation's drive for \$100,000 for its scholarship endowment fund. Sharing the program Canadian writer Robertson Davies will talk about the Met during Johnson's years as general manager. War Memorial Hall, \$5.

## Cater to students

The Guelph Spring Festival has made a real effort to cater to students with its programming and special student rates.

Canadian Indian folk singer Alanis Obomsawin, who was last year's star at the Mariposa Festival, will appear in War Memorial Hall on May 8; but she will also give a seminar for students in Music Room 107 Arts on May 7 at noon. Her subject will be Canadian Indian folklore.

Another concert that will attract students is folk singer Monique Leyrac who will sing in War Memorial Hall on May 11. Like all the other musical events, tickets for these two performers are half price to students.

Students may see Menotti's opera, *The Consul*, much less than half price on the second and third nights of the performance, May 1 and May 3. Student tickets for those performances are \$1.

Free events in the music room on May 4 include a talk by Fine Art Professor Gordon Couling on Guelph architecture at 10:30 a.m., a noon hour talk by Dr. Frank Edebaun on the James Ensor Exhibition, and a talk by Robert Mann of the Juilliard Quartet at 3 p.m. on the composer, Bela Bartok. On May 5 at 10:30 a.m. Ronald Mavor, of the Edinburgh Festival will speak on festivals.

Thursday noon hour concerts in May will feature the St. John's School choir of Elora on May 10 and the Centennial Collegiate concert band outside the Arts building on May 24.

## Art Exhibits

Three art exhibits will be on campus during the Guelph Spring Festival. An exhibit of children's art from the five counties in this area opens in the Red Lounge of Arts, April 29 at 3 p.m. The Tony Hauser exhibit opens in the Faculty Club April 30 at 8 p.m. and the James Ensor exhibit opens in the McLaughlin Library May 6 at 3 p.m.

The Ensor exhibit is a collection of etchings and drawings by the Belgian artist, organized by the National Gallery and the Belgian Ministry of National Education and Flemish Culture. James Ensor was born in 1860 and died in 1949. The exhibit continues to June 3.

Elora portrait photographer Tony Hauser's exhibit features color camera studies of Western Ontario musical personalities, called Photo-Musica. The exhibit, which will be in the Faculty Club for the duration of the Festival, includes portraits of musical personalities from Kitchener, Waterloo, Galt, Hamilton, London and Guelph.

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For information contact the Guelph Spring Festival box office in the Courtyard, 821-3210 or Ext. 3158.

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## GRANTS

The National Research Council has awarded 1973-1976 grants to the following faculty members of the Department of Mathematics and Statistics: Professor B. L. Raktoe, three year operating grant in the amount of \$15,900 for research in design and analysis of experiments; Professor H. J. Malik, three year operating grant in the amount of \$13,800 for research in distribution theory; Professor H. Pesotan, three year operating grant in the amount of \$1,800 for research in lattice theory, and Professor J. A. Holbrook, three year operating grant in the amount of \$18,900 for research on the Theory of Hilbert Space Operators.

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Professor S. H. Collins, Engineering, has received a grant from the Defence Research Board of \$28,000 for Orthophoto Development, and grants totalling \$23,000 from the National Research Council for work on the Physical Basis of Photo-interpretation.

\* \* \*

Grants in the amount of \$80,950 have been announced in the School of Engineering. The list follows: H. D. Ayers, travel grant, NRC, \$7,500 as third instalment on NRC research grant, hydrology; P. S. Chisholm, \$3,750 as first of three year instalment on NRC research grant, on The detailed response of components of earth resource systems to climate; W. T. Dickinson, mathematical model for streamflow from a forested mountain watershed. Department of the Environment. First year, \$30,000, second year, \$13,000, description and modelling of hydrological catchment systems, NRC third installment of three year operating grant, \$7,500; E. Davison, \$4,000 as second installment on NRC research grant; J. H. A. Lee, \$5,000 as first of three year instalment on NRC research grant, physical properties of mixtures of agricultural materials; H. K. Malinowski, \$3,500 for research on wind effect on internal and external air flow patterns, \$3,400 to move wind tunnel location; D. R. Pattie, \$3,300 as third instalment on NRC research grant.

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The following grants have been made to aid research in Physical Geography 1973-74: Professor A. Falconer, \$3350 NRC, project — trends in glacial sediments; Professor B. D. Fahey, \$2000 NRC, project — laboratory investigations of rock break-up and soil disturbance under simulated periglacial conditions; Professor R. D. Thompson, \$3500 Atmospheric Environment Service, project — studies of the energy balance over the winter snow pack in the Guelph area. In addition the National Research Council has

awarded the department a conference grant of \$3000, for the third Geomorphology Symposium 'Research in Arctic and Alpine Geomorphology,' (organized by Professor Fahey and Professor Thompson) which will be held on campus May 4-5, 1973.

\* \* \*

Professor Edward Herold of the Department of Family Studies has received a grant of \$9,000 from the Department of Family Planning — National Health and Welfare, to survey the teaching of sex education in Ontario schools.

## Three semester report

Copies of the Three Semester Report are available in the office of the secretary of Senate, and the library. A limited number were printed as there is a second section on the financial implications of the three semester system still to be done.

## Moving

The employment section of the Personnel Department is moving April 26 to the second floor of the old Engineering building on Trent Lane behind the Arts building. Entrance will be through the north door on Trent Lane. J. G. Curran, employment coordinator; A. G. Russell, assistant employment coordinator; Mrs. J. Judson and Miss A. Bellai may be reached at Exts. 3058 or 3059.

## Hindu Cultural Society

The International Society for Krishna consciousness was started in 1966. The Toronto branch of this organization will be on campus on Sunday, April 29 at 10 a.m. in the 8th floor lounge, Arts. The program consists of Puja, Bhajans and discourse. Books will be available to purchase.

## Parking change

Holders of black and orange parking stickers may now park in either black or orange lots. The change, announced by the Standing Committee on Parking, is on a trial basis for the Spring Semester. Blue areas will continue to be reserved exclusively for resident students.

## HELP

The HELP organization on campus has been working on a one to one basis with children and families chosen by the Children's Aid Society. The semester's work culminated in an open house held recently at the CAS for children, their parents, student volunteers and

CAS staff and board members. During the winter they had craft evenings. The children's crafts were on display at the open house where colored slides were also shown.

## Arts in society

Professor Nicholas Goldschmidt has returned from a speaking tour of the west where he said the Canadian identity will only emerge through the works of the country's writers, musicians and artists. Professor Goldschmidt was given generous news coverage in the cities he visited. A news report from Calgary quotes him as saying, "Let us build a new society in which the arts will be valued for what they are, an essential component of a balanced life and a thriving culture . . . (that should) take their proper place, not on the edges of the national life, but at its heart."

## Visiting physicist

Professor Bernd Crasemann, University of Oregon physicist, will visit the Physics Department on Monday, April 30. He has achieved high repute not only as a teacher of physics but as a researcher in both experimental and theoretical physics. Professor Crasemann is co-author of a widely used graduate textbook on quantum mechanics. In research his interests span both atomic and nuclear physics, but he is most widely known for the leading role he has played in the important boundary region between these subjects. Last year he was invited to summarize the proceedings of the International Conference on Inner Shell Ionization Phenomena. He will speak in Physical Science 113 at 2:30 p.m. on the interface of atomic and nuclear physics. Undergraduate and graduate students and faculty are invited to meet Professor Crasemann over coffee at 3:30 p.m. prior to the colloquium.

## Foreign student employment

Under the new employment visa regulations, foreign students seeking employment who legally entered Canada before January 1, 1973, are exempted from the requirements of certification by a Canada Manpower Centre. The exemption applies until the students finish their courses. Students who entered the country after January 1, when the new regulations came into effect, are fully subject to the employment visa regulations.

## REWARD

A small carton of 24 CVA GE projector bulbs was delivered by mistake somewhere on the campus on April 12 or April 13. There is a reward for them, from Royal City Delivery, 823-2430.

# NEXT WEEK AT GUELPH

## THURSDAY, APRIL 26

**T.V.** — SPOTLIGHT ON UNIVERSITY OF GUELPH. Cable 8 at 6:15 p.m.  
**Radio** — HEIDELBERG HI-LITES, University of Guelph news program. CJOY 1460, 6:20 p.m. Monday — Friday.  
**Conference** — CAMPGROUND OPERATORS  
**Meeting** — HINDU CULTURAL SOCIETY general meeting for approval of constitution and election of officers, 7 p.m. Arts 315.

## FRIDAY, APRIL 27

**Conference** — ONTARIO CONFEDERATION OF UNIVERSITY FACULTY ASSOCIATIONS. Panel on Continuing Education at 2 p.m. and panel on Canadianization at 4 p.m. Both in Physical Science 105.  
**Worship** — MUSLIM JUMA PRAYER, 1 p.m. Arts 315.  
**T.V.** — SPOTLIGHT ON UNIVERSITY OF GUELPH, Cable 8 at 5 p.m.  
**Conference** — CANADIAN INSTITUTE OF FOOD TECHNOLOGISTS

## SATURDAY, APRIL 28

**Conference** — ONTARIO CONFEDERATION OF UNIVERSITY FACULTY ASSOCIATIONS. Panel on Federal-Provincial Cost-Sharing in Higher Education at 10 a.m. in Physical Science 113. Hon. J. M. McNie, Minister of Colleges and Universities will speak at 2 p.m.  
**Open House** — B.A. PROGRAM STUDENTS. 11 a.m. to 4 p.m. Red Lounge, Arts building. (See story in this issue of News Bulletin)

## SUNDAY, APRIL 29

**Worship** — PUJA — sponsored by the Hindu Cultural Society. 10 a.m. 8th floor lounge, Arts. MUSLIM ZUHR PRAYER, 1 p.m. 9th floor lounge, Arts.

## MONDAY, APRIL 30

**Registration** — SPRING SEMESTER STUDENTS  
**Colloquium** — THE INTERFACE OF ATOMIC AND NUCLEAR PHYSICS, by Dr. Bernd Crasemann, Dept. of Physics, U. of Oregon. 2:30 p.m. Physical Science 113.  
**Seminar** — IMAGES OF ATOMS, MOLECULES AND BIOLOGICAL MACRO-MOLECULES IN THE ELECTRON MICROSCOPE, by Dr. F. P. Ottensmeyer, Dept. of Medical Biophysics, U. of Toronto. 4 p.m. Physical Science 113.

## TUESDAY, MAY 1

**Classes** — COMMENCE

## WEDNESDAY, MAY 2

**Conference** — CITY ENGINEERS, continues to Friday, May 4.

# Job Opportunities

*New Listings as of April 19, 1973*

*Stenographer, Zoology. Salary range: \$77.94 — \$111.47.*

*Stenographer, Psychology. Salary range: \$67.53 — \$83.92.*

*Stenographer, Sociology and Anthropology. Salary range: \$77.94 — \$111.47.*

*Typist, College of Family and Consumer Studies, Dean's Office. Salary range: \$67.53 — \$83.92.*

*Secretary to the Chairman, Sociology and Anthropology. Salary commensurate with experience and qualifications.*

*For further information please see Bulletin Boards or call Extension 3058 or 3059.*

The News Bulletin is published every Thursday by the University of Guelph's Department of Information. News items must reach the Information Office, Room 361, McLaughlin Library (Ext. 3863) by noon Friday. Articles and news items may be quoted or reproduced in full.

**NEWS  
BULLETIN**

UNIVERSITY OF GUELPH

# Registration and orientation

Registration for the University's Spring Semester will be held April 30 with classes starting the next day, Tuesday, May 1.

Some 2800 students, undergraduate and graduate, part and full-time are expected to spend the next 14 weeks studying at Guelph, with about 300 of these freshmen.

An orientation program for freshmen has been planned, complete details of which follow:

## Sunday, April 29

- 9:00 a.m. — Residences open
- 2:00, 3:00, 4:00 p.m. — Parent Orientation — Ottawa Dining Hall
- 2:00, 2:30, 3:00, 3:30, 4:00 p.m. — Campus Tours — departing Ottawa Dining Hall
- 6:00 — 6:30 p.m. — Off-Campus Students Meeting — Ottawa Dining Hall
- 6:30 — 7:00 p.m. — Orientation Group Meetings — in residences
- 7:30 p.m. — President's Address & Community Program Physical Education Rink
- 10:00 p.m. — Coffee Houses — Midland Dining Hall, Der Keller, the Bullring

## Monday, April 30

- 8:30 — 10:00 a.m. — Freshmen Registration in Physical Education Building
- \* Academic Program Meetings:
  - B.Sc. (Agr.), B.Sc. - Earth Science, B.Sc. - Food Science, Physical Science 201
  - B.A. program, Room 107 Arts
  - B.Sc. program, Physical Science 113
  - B.A.Sc. program, Macdonald Institute 106
- 10:45 a.m.
- 11:00 a.m.
- 2:00 p.m.
- 7:00 p.m.
- 8:30 p.m.
- Orienteering — details to be announced at Orientation Group Meetings
- Orientation Group Meetings with Faculty & Student Affairs Staff in residences
- Student, Faculty, Administration Mixer Ottawa Dining Hall

## Tuesday, May 1

- Classes begin
- 12:00 noon — 1:00 p.m. — President's Luncheon for new students (Orientation groups will attend together) W. C. Winegard's home
- 1:00 p.m. — 2:00 p.m.

## Wednesday, May 2

- 12:00 noon — 1:00 p.m. — President's Luncheon for new students (Orientation groups will attend together) W. C. Winegard's home
- 1:00 p.m. — 2:00 p.m.

## Thursday, May 3

- 5:00 p.m. — Barbeque Dinner (weather permitting) Complex B Dining Areas

**\*It is important that all new students attend these academic program meetings.**

Postage-Paid-In-Cash At Third Class Rates Permit 721, Guelph, Ontario.

D. Nightingale,  
243 Speedvale Ave. E.,  
Guelph, Ontario  
N1E 1M8