

Inside this issue: Resources and priority-setting are rivers yet to cross, but Guelph had a glimpse of its future last week in *The University's Five-Year Plan, 1986-1987*.

*At Guelph* looks at the thinking behind the plan of each college, University school, and academic service unit in interviews with deans and directors.

## Fish industry to benefit from research station

A new research station northwest of Flora will help boost Guelph's research in aquaculture.

The Ontario minister of agriculture and food, Jack Riddell, and the minister of natural resources, Vince Kerrio, announced the acquisition of the farm property at a recent campus meeting of the Aquaculture Association of Canada and the Ontario Trout Farmers Association. The provincial ministries will own the

farm, and Guelph will operate the research station — to be known as the Alma Research Station — under a contract agreement.

The goal of the new research facility is to expand research programs in many areas of commercial fish production to meet the needs of a rapidly growing segment of the food industry, said Larry Milligan, dean of research.

Aquaculture research has been carried out at

Guelph for 15 years, said Milligan, but it has been limited to laboratory scale. The new facilities will allow lab projects to be translated into commercial scale trials. Guelph research, which in the past has included studies of fish production and management, including fish diseases, will be expanded into new areas such as fish genetics, pathology and nutrition. Programs in the other areas will also be stepped up, he said.

Fish farming accounts for 20 per cent of world fish consumption, said Riddell, and that figure is expected to rise to 50 per cent by the end of the century. In Ontario, the figure is much lower; the province's 100 commercial fish farms, with annual sales of more than \$5 million, produce only a small percentage of the fish consumed. "Aquaculture has the potential to increase fivefold over the next decade," said Riddell.

The ministries are expected to take possession of the farm in December, said Prof. John Hilton, Department of Nutritional Sciences, who is involved in aquaculture research. The 13-acre property, which will be fenced to separate it from the adjoining farm, has a private entrance from the road. There are buildings on the property, and it has an adequate water supply from five wells. Research proposals are being drafted that will shape the plans for buildings and renovations.

Kerrio said his ministry intends to expand the Guelph contract to include a quarantine unit at Alma to import fish stock from other jurisdictions for genetic studies, and to introduce new species for commercial culture. This will offer commercial fish farmers new avenues for the market for commercially raised fish, which may eventually include Atlantic salmon wall-eye, perch and coho salmon. 0



*Continuous learning begins early at Guelph. Last week marked the first of several graduations for some 25 youngsters enrolled in the Family Studies Preschool who are now ready for kindergarten.*

*Photo by John Majorossy, Illustration Services*

### Summer Schedule for at Guelph

**At Guelph** will not be published July 3 and 17, Aug. 7, 14, 21 and 28. A special issue will be published July 31 that will cover events and news for the entire month of August. If you have news for this issue, it should reach **at Guelph** by July 24.

The first issue of the fall semester is Sept. 4. Copy for that issue should reach **at Guelph** before Aug. 28.

# THE LEGACY

## Clark sets Guelph on the road to greatness

The University honors Howard Clark next week — the man who provided the leadership for the rewriting of the University's aims document, *Toward 2000: Challenges and Responses. Aims of the University of Guelph*. His legacy is regarded as a means of putting Guelph at the forefront of North American post-secondary institutions.

Clark, who becomes vice-chancellor and president of Dalhousie University Sept. 1, views the document as the highlight of his years here. And, if implemented, he says, it will go a long way towards making Guelph a truly outstanding university.

Dean of Arts David Murray says Clark's refusal to accept anything but a statement of aims appropriate for the University of Guelph helped to make the document distinctive and one of the best of its kind in Canada.

President Burt Matthews says Clark has made "an outstanding contribution" to the University during his years as vice-president. "His 'idea of a university' results from many years as an active teacher and researcher, and his deep thought about what a university should be in today's world. Guelph is a better place because he was

A New Zealander by birth and a Canadian by adoption, Clark came to Guelph 10 years ago as vice-president, academic, and professor of chemistry. He was a scholar of international reputation and had a proven record as an academic administrator at the University of Western Ontario. His leadership, administrative skills and academic credibility have served Guelph well, no more so than during 1983 when he took over as acting president following the sudden death of President Donald Forster.

As vice-president, academic, Clark has been outstanding, says Jack MacDonald, dean of the College of Physical Science, and Clark's successor. MacDonald lauds Clark's ability to grasp

the salient features and telling points of every problem or difficult situation he faces, and his encyclopedic knowledge of the University.

Registrar Arnold Holmes describes Clark as "one of most brilliant men I have ever met. His breadth of knowledge and memory is amazing and his capability as a debater allows him to stand out in any conversation."

When Clark first came to Guelph, he felt there was far too big a gulf between senior administrators and faculty. He says he has worked hard for more contact to diminish the "we-they" attitude. "I think one of the key things to get established in any university is that we are a community with a sense of purpose," he says.

John Hurst, University Secretariat, who was Clark's next door neighbor on Level 4 of the University Centre for six years, notes Clark's involvement with faculty and staff members and his human relations skills. "He is extremely perceptive, sensitive and wise, always trying to be fair in his decisions and actions," Hurst says.

MacDonald says Clark has a strong commitment to justice and the fair treatment of his colleagues, listens well and is ready to accept other people's judgments on matters.

### The researcher

Clark has also won the respect of his colleagues for academic achievements in his own discipline. MacDonald describes Clark as an outstanding research chemist who has maintained an active and creative program throughout his vice-presidency. During that time, he served as chairman of the Chemical Institute of Canada and contributed to a substantial restructuring of the organization. He also continues to serve on special committees related to education and research in chemistry.

Clark says maintaining his research has

unquestionably helped in terms of acceptability and credibility across the University. He notes that when he first came to Guelph, only one or two deans were doing research. The situation has reversed now, he says, and all of them are involved in both teaching and research. "It does help the relationship with faculty if they can see senior people actively involved in teaching and research."

### Information technology

Hurst says Clark has been a strong, knowledgeable and competent advocate for the development and use of advances in computing and information technology on campus. Clark acknowledges that major role, and says he hopes he has carried the University a long way forward. He believes Guelph is in the forefront in this field, and has a good appreciation of the role computing and information technology can play right across the University.

Clark also counts among his achievements the development of the special plan agreement with the faculty and the establishment of the Joint Faculty Policies Committee.

"I think the fact that we have established pretty good, open relations between the senior level of administration and the faculty association is particularly important," he says. "When you look at the rate at which universities have moved to unionization across the country, in the majority of cases it has happened because relations have not been good for one reason or another. What Guelph has got is a very good agreement with a lot of flexibility, and it preserves, in the joint faculty policies committee, a first-rate ongoing mechanism of modifying and improving policies ... in a non-confrontational stance."

Prof. Thom Herrmann, Psychology, has sat across the salary and benefits bargaining table from Clark for the University of Guelph Faculty Association for four years. He says Clark has always searched for ways to create the best environment in which faculty, administrators and students could work together within a framework of what was reasonable and practical.

### Accept what we are

Clark leaves Guelph with many fond memories, including his ride in a horse-drawn carriage for the installation of former chancellor Pauline McGibbon, and a few not so fond — milking a cow at Aggie Week. And he leaves with a lasting image of Guelph as a university and its people who are down to earth, straightforward and practical. "And that's fine," he says.

No university can be everything, says Clark. "Each university has to recognize and be quite comfortable with the fact that it is only going to be doing certain things — and some things are going to be more important at a particular time than others. That doesn't make second-class citizens of other people at the university.

"Guelph is a good university, with particular strengths and particular emphases, and it should be proud of them. If Guelph would accept what it is and get on with it, it has an enormous future. Our biggest hang-up at the moment is that we can't quite accept what we are." 0



*Dr. Howard Clark rides in a horse-drawn carriage with Guelph's former chancellor Pauline McGibbon at her installation in 1977.*

*Photo courtesy of the Guelph Mercury*

# A GLIMPSE OF THE FUTURE

*Stories by Bett Bran-Kennedy,  
Barbara Chance and  
Ian Sloan*



## ONTARIO VETERINARY COLLEGE

A proposal to establish a new department in OVC, which the college has been considering for several years, "is now ready to move," says Dean Ole Nielsen.

As part of its five-year plan, OVC wants to create a department of population medicine, drawing on personnel in the departments of Clinical Studies and Veterinary Microbiology and Immunology, and co-operating with the Department of Animal and Poultry Science.

Population medicine is concerned with the health of groups of animals rather than individuals, and relates particularly to managing the health of on-farm species, such as beef and dairy cattle and chickens.

"It's important to create a department whose basic philosophy is concerned with the health of the group rather than the individual," says Nielsen. "Most students coming through the door of OVC see themselves as practitioners to individual animals. That's their mindset. But it's important to have a group of people who think in more global terms."

It's particularly important to the agriculture industry, he says, because modern food production tends to work with large groups.

Nielsen says population medicine "fits in well with the health maintenance stream in our new curriculum, and it capitalizes on the strengths in OVC. I see this as putting us in the forefront in the modern approach to health maintenance in food-producing animals."

OVC also wants to develop new and expanded areas for emphasis in medical research or clinical practice, says Nielsen. "We would like to focus our efforts in areas that are important to society, and work harder at developing centres of excellence and broadening some of our basic thrusts. We want to select out a few areas to put emphasis on and strive for excellence in them."

Nielsen believes OVC has an important role to play in areas such as toxicology, animal biotechnology and medical imaging. If the college can bring together faculty with common interests in these areas and give them resources and a favorable environment to work in, he says, "I think we could make a lot of progress."

Another goal in OVC over the next five years is to lower its faculty-student ratio. The current ratio of 4.7:1 ranks the college 28th out of 29 veterinary medicine schools in Canada and the United States; the average is 3.6:1. Nielsen says OVC hopes to reduce student enrolment to 400 from its current 480 and acquire an additional 10 faculty to bring the ratio up to the North American average.

"Although our ratio doesn't seem very high compared to other colleges on campus," says Nielsen, "a lot of OVC's need for faculty is driven by the clinic and hospital services." And because faculty have to work in the hospital, he says, "it's impossible for all departments to meet the personnel policy with respect to faculty development. We want to allow faculty more time for research and scholarly activity."

In addition to giving faculty more time for research, Nielsen also wants to give them more say in college affairs. OVC has established a college forum made up of all faculty, plus staff and student representatives, to take respon-

sibility for the college's aims and objectives and to comment on academic and other OVC affairs.

"Normally, the collective faculty have no specific assigned responsibility for the academic programs in the college," says Nielsen, "but they should have a lot to say about our future, where we're going. They're the right group to take that responsibility."

OVC's five-year plan also calls for a bigger commitment to providing continuing education for Ontario veterinarians. "There's a lot of demand from the practising profession to have a comprehensive continuing education program," says Nielsen, "and we need to be more aggressive in developing programs that provide them with that."

Nielsen doesn't know where the college will get the resources to provide those programs, "but we're going to do it, one way or another," he says. O

## ONTARIO AGRICULTURAL COLLEGE

OAC's top priority over the next five years is to change the orientation of its undergraduate programs to better reflect the overall learning objectives of the University's aims document," says OAC Dean Freeman McEwen.

Right now, OAC's programs are heavily content-oriented, with an emphasis on sciences and technology. "But if you look at the learning objectives in the University's aims document," says McEwen, "you'll find qualities such as literacy, esthetic maturity and love of learning. We measure up pretty well in professional competence and technical ability, but we don't measure up in such things as esthetic maturity."

Because society is moving so rapidly, says McEwen, "it's important to have a liberal education. Our students need a good knowledge of English, history, psychology, economics and rural sociology. We want them to be competent to do something useful, and competent to do that in the context of everything else that's going on around them. We want them to be well prepared for life."

To achieve that, he says, "I think we will have to modify our curriculum quite substantially."

Another priority for the college is establishment of a centre for soil and water conservation that will bring together faculty and resources from the departments of Economics and Land Resource Science and the schools of Engineering, Landscape Architecture and Rural Planning and Development.

"Soil and water conservation is a national and international issue," says McEwen. "The pressure people put on water and land resources is taking a toll." Soil degradation, in particular,

*Continued on page 4.*

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## COLLEGE OF FAMILY AND CONSUMER STUDIES

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The five-year plan of the College of Family and Consumer Studies is a reflection of the continual growth and development that is an integral part of the college, says Dean Richard Barham.

Because the college's programs are in applied, professional fields that are constantly changing, "we have to be continually updating," he says. "We can't stand still. Revising, updating, re-shaping is our destiny on a consistent basis."

Because of that need to remain adaptable to changing conditions, FACS plans to make some significant changes to its undergraduate and graduate programs over the next year, he says. In the Department of Consumer Studies, for example, individual emphases within the consumer studies major — housing, clothing/textiles, food and consumer behavior — will be developed into full majors and given "an identity all their own." These fields have all been developing rapidly, he says, and it's time to "give them a distinct visibility and integrity."

Another field that has grown rapidly over the past 10 years is gerontology, and FACS plans to develop this subject, which is now an emphasis in the Department of Family Studies, into a major. "Gerontology has developed a life of its own," says Barham. "It has research and

scholarship behind it. And we want to keep the forward and advanced position we have in this field at Guelph by offering a major in it."

The college also plans to introduce a youth services specialization into the early childhood education program, and to review the institutional food service major in the B.Comm. program to see "how we're going, and whether we should be doing more or less."

Other proposed program developments include a course work master's program in the Department of Consumer Studies and a PhD program in family studies, to be offered jointly by the departments of Family Studies and Psychology. The current PhD program in the Family Studies is solely in human nutrition, says Barham, and there have been requests from students to work at the doctoral level in areas such as family therapy and gerontology, which have become areas of strength within the college. "These strengths are leading us to look at a program that could incorporate the interests of the two departments in an appropriate way," he says.

Another priority in FACS's five-year plan is a review of the college's academic advising program. Faculty advising is an important component of an applied, professionally

oriented program, says Barham, and FACS is the only college where all students are assigned in groups to faculty advisers and have the same adviser for all four years. In the college's larger majors, however, the student groups are getting too large, making it difficult to provide good faculty advice, he says. A review of the program will look at ways of restructuring it to solve that problem.

FACS also has plans to set up a number of new support facilities that will provide an organized focus for research within departments, across departments and across disciplines. These include a metabolic unit for applied human nutrition that will serve the joint interests of faculty in the departments of Family Studies and Nutritional Sciences, a consumer research unit and a product testing and development unit.

Product development and management are becoming increasingly important in Consumer Studies and HAFA programs, says Barham, and a product testing and development unit would provide a centre that would "pull together all the testing of products, build up some strong expertise and provide more opportunity to interact with business and industry." 0

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OAC Continued from page 3.

is a problem: "We need to do some research and extension work on how to get products out of the soil without damaging it."

Although OAC is already involved in research in this area, it's not an organized effort, says McEwen. "We tend to *ad hoc* it." A proposal for the centre went before the Research Board in May, and OAC hopes to see it in place by early next year.

This fall marks the beginning of OAC's M.Ag. program, which McEwen says is aimed at meeting the rapidly expanding need for more business experience among people working in the agriculture and food science fields. OAC hopes to see enrolment in this program reach 60 by 1990. The college will review the program continually over the next five years and make whatever revisions are needed to make the program work, says McEwen. "We may, for example, have to develop more flexibility in the program if it turns out a lot of people can't come full time."

OAC would also like to introduce a graduate program in park administration. "We have a lot of parks across Canada," says McEwen, "but we don't have a program anywhere that provides formal training for managing a park." The program OAC is proposing "would teach skills in the natural sciences, as well as the people skills and management skills that are needed to make a good park director."

Another goal of OAC is to establish a turf research unit. Turf is a \$30-million industry in Canada, says McEwen, and Guelph is the only university in the country that does anything in turf research and teaching. OAC wants to set up a unit that would organize research and extension teaching, involving the departments of Land Resource Science, Horticultural Science and Environmental Biology, and the Ontario Ministry of Agriculture and Food. 0

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## COLLEGE OF ARTS

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The College of Arts, in conjunction with the College of Social Sciences, is reviewing the core and structure of the BA program as part of its five-year plan. This review includes a discussion of the way in which undergraduate learning objectives stated in *Toward 2000: Challenges and Responses. Aims of the University of Guelph* will be expressed in college academic programs, says Len Conolly, acting dean.

Conolly says Arts may well view those learning objectives as its core program, to be expressed in its various discipline offerings. The college as a whole, however, has yet to fully debate that proposal, he says.

As Arts reviews its undergraduate programs, Conolly says he has sensed "increasing support throughout the University for the BA program" as courses offered in the college have become a "more and more crucial foundation for degrees at Guelph." The college now wants to improve its reputation by increasing honors student enrolment. At present, three-quarters of the college's students are enrolled in general programs.

To increase honors BA enrolment, Arts plans to make the program more attractive and distinctive. One possible means of doing this, says Conolly, is through the University's study abroad options; Arts plans to further develop the London semester program, implement a study abroad program with the University of Nice, France, in co-operation with the universities of Western Ontario and Windsor, and negotiate student exchanges with the University of Aberdeen, Scotland.

At the graduate level, Arts proposes a new interdisciplinary MA in English and drama. This would be a research degree, requiring a

thesis, to draw on Guelph's unique collection of theatre archive materials, Conolly says.

The college also plans to continue its co-operation with the Library in building special collections by identifying collections and funding.

Conolly says the College of Arts faculty is "aging." The five-year plan shows that, as of July 1, 1985, only nine of the permanent faculty, less than 10 per cent of the total, were under age 40. "We are anxious to bring in new, younger faculty," particularly women, he says, noting the low percentage of female faculty in the college. According to the college plan, if faculty renewal funds become available, Arts would use the money to correct the age and gender imbalances.

Arts would also like to undertake a major initiative in counselling and liaison; subject to funding, it wants a staff appointment for BA program liaison. The college plan says Arts doesn't believe that prospective students and their parents are "sufficiently aware of the nature of Guelph's programs in the BA, let alone their quality or distinctiveness." A liaison officer and better counselling should result in an improvement in the quality of students entering the BA program, and a reduction in the BA student attrition rate, Conolly says.

The college also plans to incorporate the benefits of information technology into its teaching programs in the next five years, he says. And it plans to continue to do the things it does well already — major research projects, editing scholarly journals, and the disciplined scholarship and criticism that has resulted in national and international reputations for a number of Arts scholars. 0

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## COLLEGE OF SOCIAL SCIENCE

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A university image that reflects the attractions of College of Social Science programs is important to the successful implementation of the college's five-year plan, says Dean John Vanderkamp.

The image must emphasize the flexibility inherent in the college's undergraduate course offerings, he says. Flexibility is important to many students entering the college because they have yet to make a decision about an area of academic concentration.

Over the next year, CSS plans to review and redevelop its BA program in conjunction with the College of Arts. Social Science wants to increase the number of students enrolled in specialist or honors programs; at present, three-quarters of the college's undergraduates are registered in the general program.

The CSS five-year plan emphasizes ways to encourage greater enrolment in honors programs, including the decentralization of power to the departments to develop honors programs. This move will result in honors programs more accurately reflecting departmental strengths and interests, says Vanderkamp. The college also plans to develop a system of analysis of academic achievement to determine who may enter popular courses. At present, quota systems are used and good marks don't guarantee placement in a popular course.

The plan also calls for the removal of the 70-per-cent average required of all honors students, to be replaced by the system used in the general program—a maximum number of C's and failures. These proposals should act as an incentive to students to undertake the honors BA, Vanderkamp says.

The college's graduate enrolment has grown in the last five years, particularly in the departments of Political Studies and Sociology. CSS plans to increase its graduate student population from the current 110 to between 150 and 180 in five years.

The five-year plan places a high priority on the development of graduate programs, particularly collaborative PhD programs, both within the college and with departments outside the college.

With the Department of Agricultural Economics and Business, the Department of Economics will introduce a PhD in resource economics in fall 1987. Psychology will collaborate with the department of psychology at the University of Waterloo in mounting a PhD in industrial organization psychology, or with the Department of Family Studies in initiating a PhD in family studies. A proposal for an MA in international development is being developed that Vanderkamp hopes will be undertaken in 1986/87.

In addition, Geography and Economics have jointly proposed that a PhD program in rural resource evaluation and environmental analysis

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**THE SULAWESI FORUM** presents a discussion of "Project Management: Perspectives from the Field" June 24 at noon in room 117A, MacKinnon building. Guest speaker is Chris Dagg, project manager for the Sulawesi Regional Development Project.

go before the Board of Graduate Studies and Senate in 1986/87.

Because good graduate researchers don't come without financial incentives, the college plans to increase scholarship commitments to graduate students by 100 per cent. The college now budgets \$550,000 a year for this purpose.

The five-year plan also proposes an undergraduate school of integrated studies, to be called "Akademia." The college feels that such a school would be used by students and scholars for developing timely, interdisciplinary studies. The school will use existing faculty resources,

but would require an administrative budget of about \$100,000, Vanderkamp says.

The college proposes one major capital expenditure to alleviate a research space crisis: \$250,000 should be spent to renovate Day Hall for the use of the Department of Geography.

The five-year plan also proposes the establishment of endowed chairs in each of the four proposed PhD programs. These would enhance Guelph's reputation and enrich its graduate programs in the social sciences. Each chair would require \$75,000 a year to maintain, according to the college plan. 0

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## COLLEGE OF PHYSICAL SCIENCE

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The College of Physical Science moved forward in research, teaching and service over the last five years, even though resources were stretched thin, says Dean Jack MacDonald. These developments should continue over the next five years, he says, but there must be some acknowledgment that the college needs new equipment and space.

CPS's five-year plan states that it will not be passive in "the battle for . . . discretionary University resources." The college's resource needs are capital-intensive, because the equipment it needs is rendered obsolete quickly, says the plan. And the college needs more space: "We have exhausted virtually all possibilities for creating additional useful space from within, yet we will require considerable space in the next five-year period, as our graduate programs develop and expand."

MacDonald says his term as dean has involved "an attempt to make sure that resources go as far as they could" in the college, but it has not been an easy task. Parts of the college have grown faster than others, he says, and the Department of Computing and Information Science in particular has made demands on college resources. CIS's growth will soon result in the introduction of a master's program in computer science.

The centrepiece of the college's plans for the next five years is the University's aims document, which will be used to "drive the college," says MacDonald. Plans at the undergraduate level are being considered that will break down the barriers between departments, a concern expressed in Aim 4.6 of *Towards 2000: Challenges and Responses*.

Courses are being proposed that will allow high-quality incoming students the opportunity to pursue a course of study that integrates the study of the elements of chemistry, physics and maths in a single series of courses. MacDonald says these more naturally structured courses should prove attractive to students as they help to create a "top-notch education" in physical sciences.

There is still a struggle to build up undergraduate numbers in the college, but MacDonald and his colleagues are encouraged by the emergence of physical science students as a viable entity on campus. CPS students recently formed a student council.

The college is also moving forward in its graduate programs. The ideal number of graduate students is 180, according to the five-year plan; current graduate enrolment is 110. The plan says the Department of Mathematics and Statistics would be well served by the introduction of a PhD program oriented towards applied mathematics and statistics and the interface between the two. The department will develop a proposal for such a program by 1988.

A plan to link Guelph and the University of Waterloo by a two-way video microwave link so that travel between the two universities is reduced is waiting for approval from the Department of Communications. Once it's approved, a fund-raising campaign will be initiated in anticipation of the link going into

In research, the college plans to capitalize on its strengths in the emerging field of nuclear magnetic resonance. This will involve collaboration with the College of Biological Science in the application of NMR imaging in biological systems.

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## WELCOME BACK ALUMNI

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The welcome mat is out this weekend for returning alumni. The University of Guelph Alumni Association and the alumni associations of individual colleges have a variety of events and activities planned for Alumni Weekend.

The weekend kicks off Friday with Monte Carlo Night, an evening of gambling, dancing and live entertainment. There will also be an auction sale and door prizes, including a trip for two to Las Vegas.

Monte Carlo Night gets under way at 8:30 p.m. in Creelman Hall. Tickets are \$10 per person, \$15 per couple, with all proceeds going to the Alumni House project.

Full details of Alumni Weekend are listed in "Next Week at Guelph." 0

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## COLLEGE OF BIOLOGICAL SCIENCE

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The College of Biological Science needs a major review of its undergraduate programs to ensure that students entering biology receive an efficient introduction to the discipline, says Dean Bruce Sells.

Nothing is static, says Sells, and what is important today may be less so tomorrow; disciplines change as new advances are made. "It is essential that we look at how we are presenting material," he says. "It must be done in a coherent manner, so that students can see their own progression from introductory courses — they gain in depth of knowledge, but also must see where their learning fits into the broader picture."

All departments and colleges realize they can't expect to do research in every area of their disciplines, Sells says. Recruitment, both by design and by chance, tends to bring together a cluster of people who are interested in similar problems and can communicate and interact about their research. It is important, he says, to recognize these areas of strength, and to define and develop them.

Undergraduate and graduate biological science students must be exposed to computers, says Sells, because information technology is playing an increasingly important role in the sciences. Students must know what computers can do for them and learn how it can be done. The college plans to incorporate new technology into its courses.

A major aim of the college is to attract high-quality undergraduate and graduate students. To do this, prospective students must know that good programs exist, what they are, and how they fit their own interests, says Sells. A liaison committee within the college, interacting with Admissions, the Office of the Registrar and Public Relations and Information, plans to make more prospective students aware of CBS through promotion.

Faculty renewal and recruitment plans must fit in with the priorities of the college, Sells says. Things move and change quickly in the biological sciences, and the direction the college takes should continue to emphasize its recognized areas of strength, as well as move into new areas and keep abreast of new developments, he says.

There has been a substantial increase in numbers of graduate students in CBS, says Sells, but because there is a strong demand for M.Sc. degrees in the marketplace, fewer students are continuing to the doctoral level. There is an equally high demand for PhD-level scientists, he says, and the college is encouraging graduate students to continue to that level.

There are a number of strengths in various colleges that overlap, such as human nutrition, biotechnology and plant sciences, says Sells. Without impinging on the independence of the various departments, he believes co-operative efforts should take advantage of these mutual interests. 0

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## INFORMATION TECHNOLOGY

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For the past two years, following Senate approval of the University's goals for information technology, the integration of information technology into the academic and administrative programs on campus has been an objective for various Senate and administrative committees or task forces.

A strategic plan for information technology has now been proposed that defines an educational network that would give all Guelph students access to information services, programs and resources.

Margaret Beckman, executive director for information technology, says that "given the strengths at the University in networks and networking and the capabilities provided by the implementation of the ROLM voice/data network, it seemed appropriate to move in the direction of a campus-wide educational network through which students would access a variety of the information sources and services that they need for their academic programs."

The plan says that to ensure that all students need to use the University's information resources, information technology should be integrated into, and related to, their academic programs. A target of fall semester 1987 is proposed to have a course-related requirement for network access for all students. Beckman is now consulting with the colleges to determine what strategy should be followed in each

college to reach this target.

Also in the planning stages is an integrated orientation program for students, encompassing the Library, Computing Services, Communication Services and the Office for Educational Practice. This is expected to be in place by fall 1986.

Beckman says the new directions in information technology require the University to develop new ways of providing support services. As part of that, the strategic plan proposes to move support services out to the users, assigning information technology co-ordinators to individual colleges.

This is "a more dynamic form of service," says Beckman. "Resource people will be in the colleges, making themselves more available to the users. That means someone will be there when help is needed, and resource staff will get a better appreciation for the problems and needs occurring in the colleges and find out how best to deal with them."

Other plans include setting up a support desk staffed by professionals in Computing Services, and putting more emphasis on information modules and brochures rather than course instruction for computer users. Actual courses that are needed will be integrated into the academic curriculum or provided through Continuing Education. 0

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## THE UNIVERSITY SCHOOL OF RURAL PLANNING AND DEVELOPMENT

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The University School of Rural Planning and Development is six years old and it's time to intensify its ongoing review and course assessment programs, says director David Douglas.

There's a changing market for rural planning and development, he says, and messages from Canadian and international employers, as well as demands from students, indicate that a broader review is appropriate. He wants to examine course content and explore innovative ways to teach and supervise students.

A new program in international rural development, to be initiated this fall and in place by 1987, will consolidate faculty resources and stress the international aspect of rural development work, says Douglas. He hopes the school will have a new faculty member with major responsibilities in this area.

The appointment of a co-ordinator of rural domestic outreach will stabilize a relationship that has been on a contractual basis, and enhance long-term planning, says Douglas. Because the school does a fair amount of contract work, he says, there's a real need for one person to be available for organizing field work and students' time, to be a focal point for domestic outreach, to develop networks, to be a resource to faculty for grant applications and, in general, to handle the logistics of outreach programs.

The introduction of a PhD program with an interdisciplinary focus is a logical extension of the graduate school, which now offers MA and

M.Sc. degrees, says Douglas. "Colleagues across Canada are telling us there is a need for this." Guelph is the only Canadian institution offering graduate work in rural planning and development, and international development agencies and graduates have been pressing for a program at the doctoral level.

Because the school's mandate says it has a responsibility to draw on the full resources of the University, the interdisciplinary focus of the PhD program would be easily accommodated, says Douglas. He estimates that for the first five years, the program would attract no more than six to eight students a year and would eventually accommodate a maximum of eight to 10.

Significant increases in costs to the school would be unlikely, he says, because a doctoral program would attract international grants and bursaries, doctoral funding and Canadian foundation funds.

Douglas believes the traditional personnel review and promotion system has some disadvantages and he would prefer to look at faculty reviews as opportunities for human resource development, not appraisals. The school is working towards developing a team of peers that would work with each faculty member, giving advice on development and working out a development "contract" with each. "This has already begun and Douglas hopes to see it become more formalized over the next few years. 0



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# UNIVERSITY SCHOOL OF PART-TIME STUDIES AND CONTINUING EDUCATION

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Getting the name right is always important, but at the University School of Part-Time Studies and Continuing Education, it has become a priority.

Topping the list of the school's plans for the next five years is a change in the unwieldy name that has been the bane of business cards and letterhead since the school first began. Not only is the name long and awkward and "very impractical," says Mark Waldron, the school's director, "but it doesn't express what we do."

Although a new name for the school has not yet been decided on, one possibility is the faculty of continuous learning.

Another priority for the school, says Waldron, is to help establish a third age university for people who are retired or close to retirement.

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## CENTRE FOR INTERNATIONAL PROGRAMS

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The Centre for International Programs wants to help form international program committees at college and department levels, says the centre's director, Archie MacKinnon. The committees would localize efforts to include an international perspective in teaching, research and outreach as outlined in the University's aims document, he says.

The centre can provide a resource base for integration of an international flavor in courses, says MacKinnon. In addition to content, the centre can help with methodology through the use of people with practical international experience.

Canada makes the largest per capita contribution to food aid of any country, says MacKinnon, and this fact, combined with Guelph's long tradition in agriculture, makes the University, and specifically the centre, the appropriate organization to take a leading role in research in this area. "There is currently no centre that focuses research efforts on international aid policy," he says, "and one of our roles should be to encourage and assist such endeavors."

MacKinnon says students must have opportunities to be participants in international activities because there is a demand for people who are willing and able to participate in activities on a global scale. This is also in line with the University's aims, which call for student involvement in international learning experiences, he says.

The establishment of associates of the centre will acknowledge and formalize the extensive involvement of faculty members and others in research, teaching and practical international experience, says MacKinnon. Many departments now provide opportunities for faculty to focus on international learning experiences, he says, and the associate designation will provide an avenue for this involvement to be designated as part of their duties. 0

The school would help organize the university, but the participants would run it themselves, tapping into the University's resources. This would "give them the power to decide what they want rather than have us tell them what's available," he says. The university would offer workshops and courses of particular interest to older adults, and many of the courses could be run during the day.

Bringing more older adults into programs on campus could benefit the University, says Waldron, because some of them could become involved in working as volunteers and tutors, or in hosting foreign students.

The school's five-year plan also calls for an enlargement of its distance education course offerings. "There's such a demand there, we're just swamped," says Waldron. "We had a 1,000 student target for the year, and we used that up in the first *week* of this semester. We'd like to increase the number of courses and the target number as well." The school also wants to develop new certificate programs, including

one in public administration.

Currently, distance education students cannot receive a complete certificate or a degree without spending some time on campus, but Waldron expects that complete certification will be available within a year and a complete BA by 1990.

The school also wants to establish an international training secretariat, appointing a half-time person to co-ordinate short-term training courses at the international level. The school currently organizes about six of these courses a year, says Waldron, "but I see the potential to have many more, perhaps 25 to 30 a year."

Another goal is to establish an adult education resource centre — a drop-in centre for adult students, offering resource materials on University programs and procedures, study skills and adult education. There's a lot of interest in such a centre, says Waldron, and establishing it would simply be a matter of finding some space. Unfortunately, he says, that's something that's in short supply. 0

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## LIBRARY

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A 35-per-cent increase in space requirements is a conservative estimate of what the Library needs to continue providing the quality of service compatible with the University's goal of excellence, says chief librarian John Black.

In 1978, plans called for a 100,000-square-foot addition to the Library; today, it is coping with a shortage of shelving space by adding stacks and placing them closer together, using microforms and storing some material off site. Black says service to users and development of the Library collection will decline if additional space is not made available. The collection now consists of more than two million volumes and it is simply running out of room, he says.

The Library's integrated on-line catalogue was created to improve access for users. Remote access to circulation inquiry, from terminals across campus, has been available since 1977. Another step, which would allow remote access to acquisition information, is almost complete, says Black. All the full on-line catalogue and records for the Library's total holdings will be available to searchers in one database.

A review of existing Library orientation programs is needed to increase their scope, says Black. It's important, he says, to make it clear to people that the Library is much more than a collection of books and journals. "We have been receiving feedback from across campus about the need for modern information access training." There is also a need for students, especially seniors, to have specific instruction in information access and searching skills — an area in which the Library's staff would be the logical instructors, he says.

The Library provides access to many on-line databases, and this is an area it wants to continue developing, taking advantage of new technology as it becomes available, says Black. One example of this technology is CD-ROM

(laser-read optical digital discs), which are small discs that can contain up to 500 million characters of data. Rather than tapping into a distant database over standard communication lines, he says, a user can merely insert a CD-ROM into a computer in the Library and access the information contained on the disk. There are also several locally created databases, and the Library is exploring the possibility of providing users with access to them.

Black wants to complete a review of the archives policies covering the University's corporate records to clearly define what properly belongs in that section. He also wants to develop a policy for archival and special collections materials, to establish a clear direction for the development of the Library's collection. 0

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## Graduate news

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The final examination of Varghese Abraham, Food Science, a candidate for the doctor of philosophy degree, is June 20 at 2 p.m. in Room 206, Food Science building. The thesis is: "Some Catalyst Poisons in Canola Oil and the Effect of Their Presence during Hydrogenation." Abraham's supervisor is Prof. John deMan.

The final oral examination of Satya Parkash Singh, School of Engineering, a candidate for the doctor of philosophy degree, is June 20 at 10 a.m. in Room 106, Thornbrough building. The thesis is: "Hydrodynamics of Freshwater Recharge of Freshwater and Saline Aquifers by Strip Recharge Basins." Singh's supervisor is Prof. William Stammers.

Interested members of the University community are invited to attend. 0

## Next week at Guelph

### FRIDAY, June 20, 1986

**Alumni Weekend** - REGISTRATION, 10 a.m. to 8 p.m., foyer, Johnston Hall; GRYPHON CLUB GOLF TOURNAMENT, 1 p.m., Victoria East Golf Course; CAMPUS WALKING TOURS, 1 to 6 p.m., meet foyer, Johnston Hall; COLLEGE OF ARTS BARBECUE, 6 p.m., Zavitz Hall, FINE ART PRINT SHOW, 2 to 7 p.m., Zavitz Hall; DINNER, 4:30 to 7 p.m., Der Keller; ALUMNI MONTE CARLO NIGHT, 8:30 p.m., Creelman Hall.

**The Club's Summer Film Series** - STARDUST MEMORIES, 7:30 p.m., PS 113, members \$2, non-members \$3.

### SATURDAY, June 21, 1986

**Alumni Weekend** - ALUMNI BREAKFAST, 8 a.m., Creelman Hall; REGISTRATION, 9 a.m. to 4 p.m., foyer, Johnston Hall; ELORA GORGE WALK, 9 a.m., bus leaves from behind Johnston Hall; SLO-PITCH SOFTBALL TOURNAMENT, 10 a.m., register AC front desk; OAC ANNUAL MEETING, 10 a.m., Macdonald 149; MAC-FACS ANNUAL MEETING, 10 a.m., FACS 106; CSS ANNUAL MEETING, 11 a.m., LA Fireside Lounge; ARTS ANNUAL MEETING, 11 a.m., UC 430; ALUMNI PICNIC LUNCH, 11:45 a.m. to 1:15 p.m., Creelman Plaza; HAFA ANNUAL MEETING, noon, HAFA 209; CSS ALUMNI PICNIC, 12:30 p.m., games field; CBS WILDLIFE ART SHOW AND SALE, 1 to 5 p.m., Massey Hall; UGAA ANNUAL GENERAL MEETING, 1:15 p.m., Macdonald 149; CAMPUS WAGON TOURS TO ALUMNI HOUSE, 2:30 to 4 p.m., continuous departure, front of Macdonald Hall; OAC AUCTION SALE, 3 p.m., Alumni House; OVC ANNUAL MEETING, 3 p.m., Macdonald Stewart Art Centre; SCULPTURE UNVEILING & RECEPTION, 4 p.m., Macdonald Stewart Art Centre; GOLDEN ANNIVERSARY RECEPTION AND DINNER, 6 p.m., Creelman Hall; ALUMNI BARBECUE, 6 p.m., Alumni House; OVC RECEPTION AND DINNER, 6:30 p.m., UC 442; WESTERN PUB, 8 p.m., Der Keller; CSS RECEPTION, 8 p.m., Whippetree Lounge; ALUMNI DANCE, 9:30 p.m., PCH.

The following abbreviations are used in "Next Week at Guelph": APS=Animal and Poultry Science; LC=University Centre; L/A=Lennox/Addington; CM=Chemistry-Microbiology; PS=Physical Sciences; PCH=Peter Clark Hall; WMH=War Memorial Hall; MacK=MacKinnon building; ANNU=Animal Science Nutrition; FS=Food Science; CSRC=Counselling and Student Resource Centre; JH=Johnston Hall; HB=Human Biology; AC=Athletics Centre; Lib=McLaughlin Library; B&Z=Botany-Genetics-Zoology.

## Job opportunities

As of *at Guelph* deadline June 13, the following opportunities were available:

Clerk, Purchasing Department; maternity leave July 4 to Oct. 31. Hiring range: \$278.81 to \$302.05.

**Assistant Unit Manager**, Food Services. Salary range: \$429.68 minimum; \$467.30 job rate (level 5); \$564.74 maximum.

*The following positions were available to on-campus employees only:*  
**Manager**, Arkell Bull Test Station. Salary range: \$24,278 minimum; \$30,348 mid-point; \$36,418 maximum. Normal hiring range: \$24,278 to \$28,527 (1986/87 rates).

**Administrative Systems Co-ordinator**, Food Services. Salary range: \$429.68 minimum; \$497.70 job rate (level 5); \$618.05 maximum.

**Custodian**, Housekeeping Department; original vacancy, day shift, Residences. Job rate: \$9.27 per hour, probation rate \$ .20 per hour lower than job rate.

**Soil Analysis Assistant**, Land Resource Science. Salary range: \$306.03 minimum; \$333.79 job rate (level 5); \$401.34 maximum.

**Buyer**, Purchasing Department. Salary range: \$429.68 minimum; \$497.70 job rate (level 5); \$618.05 maximum.

It is the University's policy to give prior consideration to on-campus applicants. To determine the availability of University employment opportunities, contact employment services and training, Level 5, University Centre, or telephone 836-4900.

**Cycling Club** - STRATFORD WEEKEND, 80 miles, contact David or Maggie, 837-1732.

**Arboretum** - HORTICULTURE DAY, noon to 4:30 p.m.

### SUNDAY, June 22, 1986

**Alumni Weekend** - ALUMNI BREAKFAST, 8:30 a.m., Creelman Hall; CHURCH SERVICE, 10:30 a.m., WMH; SOUP AND SANDWICH LUNCH, noon, Creelman Plaza; CBS WILDLIFE ART SHOW AND SALE, 1 to 5 p.m., Massey Hall; PIANO RECITAL, Anya Laurence and Andreas Thiel, 1:30 p.m., MacK 107.

**New Student Dialogue** - RESIDENCE TOURS, 9:30 to 11 a.m., PCH; WELCOME SESSION, 11 a.m., PCH; LUNCH, noon, Branion Plaza; PANEL DISCUSSION, 1:30 p.m., PCH; RESIDENCE TOURS, 2:30 to 4 p.m., PCH.

**Cycling Club** - RIDER'S CHOICE, 10 a.m., UC south doors.

**Worship** - CATHOLIC MASS, 10:10 a.m., Alumni Lounge; ECUMENICAL CAMPUS MINISTRY, Sunday services are available at St. Matthias (Anglican), Kortright and Edin, Kortright Presbyterian, Scottsdale, and Harcourt United Church, 87 Dean Ave.

**Sunday Afternoon Walk** - SUMMER BIRDS, 2 p.m., Nature Centre.

### WEDNESDAY, June 25, 1986

**Concert** - SCOTT MERRITT, noon, UC courtyard.

**Biochemistry/Biophysics Seminar** - THE BIOCHEMISTRY OF FUNGAL RESISTANCE IN TOMATOES, Mark Bernards, noon, PS 222.

**Cycling Club** - ROCKWOOD (novice ride), 20 miles, 5:30 p.m., UC south doors.

### THURSDAY, June 26, 1986

**A Better World** - THE ROLE OF TEACHERS IN THE DEVELOPMENT OF INNOVATIVE CURRICULUM CHANGES IN CAMEROON, L.I. Tambo, noon, MacK 132.

**DUE TO** the sod-turning ceremony at the equine centre and Princess Anne's visit to the University, there will be some restrictions on campus parking June 23. Parking lots P30 (at Smith Lane) and P67 (in front of the Small Animal Clinic) will be reserved from 8 a.m. to noon. Lots P23-24 (Textiles building) and P44 (Johnston Hall) will be reserved from 8 a.m. to 2 p.m.



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