

Bikeway route by engineering students wins certificate of merit

A conceptual design for a feasible bikeway route in the Guelph region, submitted as a pilot project by 15 University of Guelph engineering students, has won a certificate of merit in the Canadian Urban Bikeways Design Competition.

The Guelph-Rockwood Bikeway proposal was designed under the supervision of Professor J.C. Jofriet, School of Engineering by Scott Bradley, Edward Cheung, Jim Davies, Marvin De Vries, Dale Downey, Bob Hooshley, Will Knoll, Richard Lay, Holger Matthiesen, Lucy McNally, Glenn Miller, Guenter Nuessler, Bob Somek, Edmond Tong and Douwe Van Der Wel, with co-operation of some students in the School of Landscape Architecture.

The Guelph students share the honors in the amateur category with a University of Waterloo student, Miss Lynne MacKenzie, who submitted a proposal for a Waterloo-Elora bikeway.

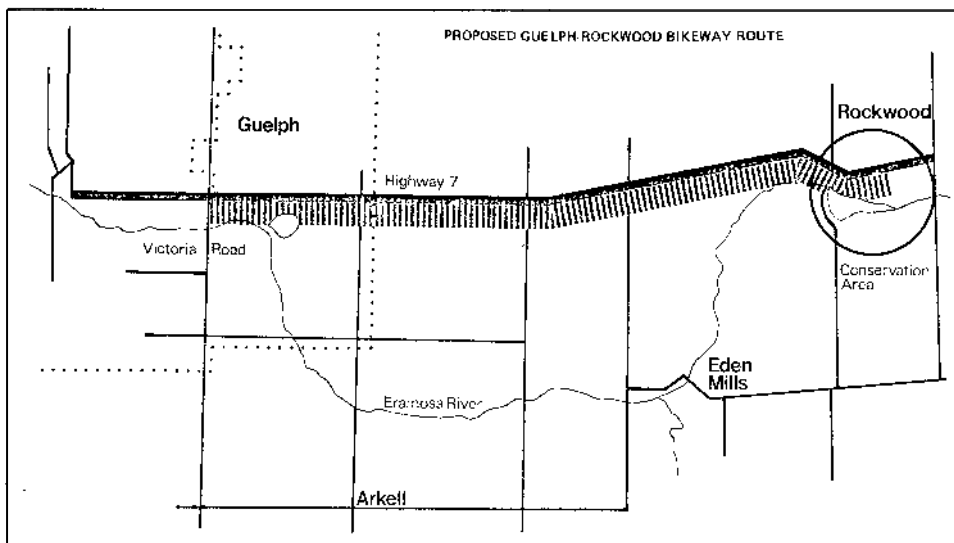
The bikeway, linking Guelph and Rockwood, is characterized by an easy land acquisition program since most parts of the bikeway are located on rights of way and abandoned railroad beds.

Starting point for the suggested route is the south side of Highway 7 at Victoria Road intersection where cyclists can cross the road on entering or leaving the City of Guelph. The proposed route uses the south side of the Highway 7 up to the Rockwood Conservation Area. This route was chosen by the students because of its beauty, feasible commuting distance (seven miles), the adequate amount of available land, and the facility of access it would give to Eden Mills, the Guelph Line, Acton, the Credit Valley and beyond.

Such a bikeway, felt the students, would be guaranteed a large use in view of the large bicycling population in Guelph and the scenic attractions of Rockwood at such a reasonable proximity. In winter, such a bikeway path could complement the growing popularity of cross-country skiing.

According to the students, an exclusive bikeway paralleling Highway 7 would be a welcome transportation alternative justified by the number of users, the minimum interference from automobiles and the directness

This conceptual design for a feasible bike-



way in the Guelph region was backed by three other studies: a proposal for the design layout of bikeways for greenbelts and parks; a study on the means of selecting various kinds of crossings which would reduce to a minimum fatalities and injuries; and a study on the relationship of bikeways to highways.

According to the promoters of the bikeway, if it were built and proved practical, the longer Kitchener to Cambridge route should be considered. They feel there is a definite commuter potential in this area as well.

In addition, the students feel that a path to Aberfoyle might be a possible first step between Guelph and Hamilton. However, they point out that the concentration of population between Guelph and Aberfoyle might not be enough to justify a path as a strictly commuter facility. A preferable way, suggested the students, might be the Guelph line.

The Canadian Urban Bikeway Design Contest is part of a research project headed by the Faculty of Forestry of the University of Toronto and the Ontario Bikeway Coalition. The Ministry of State for Urban Affairs contributed \$26,000 to the project to enable the research group to prepare a Canadian Bicycle Facilities Planning Compendium.

The Compendium will include entries from the competition and an evaluation of these, in-depth case studies of bicycle path networks in Toronto, Ottawa, Edmonton and Vancouver, and a bikeway design manual recommending

ways and means to plan bikeways in urban areas. To be submitted to the Ministry of State for Urban Affairs, the Compendium will identify problems in planning and implementation and will suggest approaches to urban bikeways.

One of the major observations made up to now by the researchers is that large urban areas have begun to consider bicycling as a means of transportation with significant future potential. According to the researchers, this is due largely to the efforts of many environmental and other pressure groups and their participation in the early stages of bikeway planning. Despite the increasing consideration given by urban planners to bicycling facilities, the researchers noted a lack of data regarding on-street bicycling facilities as opposed to those on recreational lands. This lack of data, they said, discourages municipalities and the provinces from making financial commitments to the implementation of bikeways. This issue will be tackled in the Compendium, and researchers will present data which may help to close the information gap.

ICS SUPPLEMENT

Institute of Computer Science
non-credit courses
for winter semester,
see pages 4 and 5.

REPORT FROM THE SENATE

Ph.D programs are referred back

The provincial government's change in the process of funding of graduate studies has caused previously approved Ph.D. programs in physics and biophysics to be referred back to the Committee on Academic Priorities.

The decision was reached at the December meeting of Senate following notification by acting dean of Graduate Studies, Professor David Elrick that the Ministry of Colleges and Universities has announced that the present formula funding of graduate work is suspended in favour of graduate studies grants that reflect increases in costs, but not increased student numbers.

Discussion on the implications of the announcement followed Professor J. Vanderkamp's (Economics), presentation of a motion to approve the registration of up to a maximum of four students each in the Ph.D. programs in physics and biophysics during the winter, spring, and fall semesters of 1976. After a full half hour's haggling over graduate programs, the funding of these programs and general confusion on the procedures for amending motions, Senate approved the program, in principle, but the matter is to be referred to the Committee on Academic Priorities for a report to Senate later this month.

Senate approved the enrolment of up to four graduate students in three programs — M.Sc. in human kinetics, Ph.D. in physics and Ph.D. in biophysics in May of 1975. Senate approved this request with the understanding that the embargoes would be lifted in the near future and that the program would be funded. In July, the embargo was lifted on physics but the Ministry deferred consideration of funding pending receipt of the results of the Ontario Council on University Affairs' first annual graduate program review exercise. OCUA has not yet met for this review, but it is expected this winter. The Ministry has lifted the embargo on the disciplines from number 10 to number 15 and biophysics is number 16 on the list of planning studies, so it is expected that biophysics will be considered by OCUA at the annual review exercise. Human kinetics is still embargoed. These complications were not anticipated last May as all three programs had been successfully assessed and appraised.

In September, 1975, four students enrolled in the M.Sc. program in human kinetics, one in the Ph.D. program in biophysics and none in the Ph.D. program in physics. The report said students are now deciding which university they plan to attend for the fall of 1976 and failure to act now would result in the deferral of the programs in both physics and biophysics for another year. The report also pointed out that most of the costs of the program have already been incurred and the admission of a limited number of students would not require a further substantial commitment of funds. Guelph, the report indicated, is not alone in proposing such action. There are a number of other programs in operation at Ontario universities which have been initiated and continued under conditions of no funding.

The tone for the entire debate was set at the opening of the meeting as President Forster announced that financial support for Ontario's

universities and community colleges will increase by 14.4 per cent for 1976-77. While describing the amount of \$651 million as "reasonably generous", Professor Forster warned that the amount, after off-the-top deductions in the forms of special and supplementary grants, translates into a significantly small increase in income. Free total funding would be about \$637.5 million, he said. Allocations for renewal, repairs, and maintenance of universities was quoted at \$11.8 million, roughly the same as last year. The money available to the universities means continual constraint, said the President, and will have an impact on the quality of teaching in the university. The two main points the President wished to make were that there is some satisfaction for the global amount and that the global amount translates into a significantly smaller increased income. Answering questions from Senate members, Professor Forster said the increase proposed for next year will translate into a smaller increase in the value of the Basic Income Unit for 1976-77 than the 7.8 per cent increase received in 1975-76. The president quoted a BIU increase of slightly over 7 per cent, but stressed that this estimate is based on very little information. The president said he expects full funding for growth at the undergraduate level and no increase in tuition fees.

Board of Graduate Studies

Senate approved, in principle, the registration of up to a maximum of four students each in the Ph.D. programs in physics and biophysics during the winter, spring, and fall semesters of 1976 and referred the matter to the Committee on Academic Priorities for a report to Senate in January, 1976.

Senate approved a list of changes for inclusion in the 1976-77 graduate calendar. They are:

School of Engineering — Deleted are:
05-631 Hydrologic Systems — Surface
05-633 Hydrologic Systems — Subsurface
05-635 Hydraulic Design for Water Resource Systems
05-637 Seminar on Water Resources Systems Design and
05-673 Special Topics in Water Resources

Added are:
05-680 Deterministic Hydrologic Modeling (3)F
05-681 Stochastic Hydrologic Modeling (3)W
05-682 Measurement of Water Quantity and Quality (3)S
05-683 Design of Pressurized Flow Systems (3)S
05-684 Open Channel Hydraulics (3)S
05-685 Design of Water Management Systems (31)W and
05-686 Seminar on Water Resources Design (3)W and S

English Language and Literature — added is
37-617 English Drama Before Marlowe (3)

Senate received for information a report on the approval of the M.Sc. degree by courses in water resources in the School of Engineering.

Senate received for information graduate

faculty additions, B.A. Wilson, assistant professor, human kinetics, D.A. Wilton, associate professor, economics, and associated faculty additions, R.D. Gifford, visiting professor, psychology and N.T. 'son, Institute of Computer Science and Veterinary Microbiology and Immunology.

Senate received for information notification of the course offer for the winter of 1976, 37-615, The Comic Novel.

Library Committee

Senate received the report on the proposed library hours for the winter semester, 1976, for information. The library hours are published in this issue of the News Bulletin, on page 8.

Audio Visual Committee

Senate received for information a report of the Office of Audio Visual Services for the year 1974-75. The report indicated that the re-organization of the Office of Audio Visual Services was completed during the year. This has resulted, according to the report, in a strengthening of services available and an increased ability for the office to serve on more complex undertakings. The statistical data in the report indicate a continuing high volume demand for instructional media support services. The request for workshops and other professional and consultative services indicates a major area for future development.

Office of Continuing Education

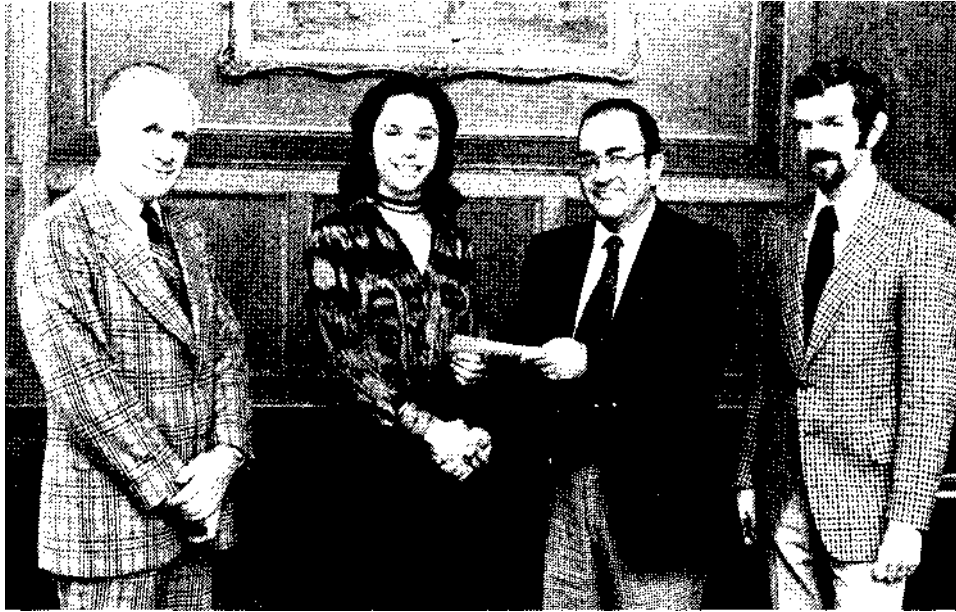
Senate received for information a report on the use of continuing education students as subjects of faculty research projects.

Senate received for information the semi-annual report of the Office of Continuing Education. During the period May 1 to December 1, 1975, a total of 66 continuing education courses/conferences was organized by the office with a registration of 3,715. The committee indicated that while there is a wide range of continuing education courses being made available, it is also concerned with the long range development of the University's continuing education program.

Senate approved the proposed 22 new courses to be offered for the winter semester.

Centre for Resources Development

Senate received for information the semi-annual report of the Centre for Resources Development, fall, 1975. There are 27 graduate students enrolled in the fall, 1975, semester, registered in 10 departments or schools. The Centre has been involved in three inter-disciplinary research projects: the Hanlon Creek study, City of Guelph; Planning and location criteria and methods for minimizing environmental impact, Ontario Hydro Commission, and the Windsor prairie study, Ministry of Natural Resources. □



Recipients of the O VC Alumni Fellowship provided annually for a graduate student enrolled in a department of the Ontario Veterinary College was awarded to 1975 recipient, Jennifer Garnham, who is enrolled in a Master of Science program in immunology in the Department of Veterinary Microbiology and Immunology. She is conducting a serological survey of rabies in wild carnivores in southern Ontario. Photographed here are O VC Dean Howell, Ms. Garnham, Dr. H.J. Neely, president of the O VC Alumni Association, and Professor J. Thorsen, representing the Department of Veterinary Microbiology and Immunology.



Elinor Schlorff, semester 5, Family Studies; Lois Edwards semester 7, Consumer Studies; Marjorie L. MacDonald, semester 7, Family Studies; Dean Janet Wardlaw, College of Family & Consumer Studies gather around the Christmas tree following the presentation of the three Harshman Undergraduate Awards.

JOB OPPORTUNITIES

Dicta-Typist, Dean's Office, OAC approximately 1 day per week. Salary commensurate with qualifications and experience.

Technician, Biomedical Sciences. Salary grade 7, salary range, \$171—\$226.

Technician, Land Resource Science. Salary grade 7, salary range \$171—\$226.

Clerk Typist, Residences. Salary grade 3, salary range \$117—\$156.

For further information please see bulletin boards or call Ext. 3058 or 3059.

Study skills clinic

The Department of Psychological Services will be conducting a study skills clinic within the residence network during the month of January. These clinics are designed to give students assistance with their patterns of study, the writing of essays and examinations, and psychological problems which have a definite bearing on the efficiency of studying.

One additional component of this program is designed to assist students who have difficulty in presenting seminars. It would be most helpful if the academic community could refer such students to Psychological Services.

Professor Alexander Sass Peepre

Funeral services were held in Toronto yesterday for Professor Alexander Sass Peepre, Department of Human Kinetics. He died January 3 at the age of 60.

Professor Peepre is regarded as the founder of orienteering in Canada and he pioneered outdoor education in this country. He coached alpine skiing, track and field, and gymnastics.

Professor Peepre received his degree in physical health and education from the University of Helsinki and joined the School of Physical Education here in 1956. He was, at the time of his death, one of the finalists for the National Executive of the Year in Amateur Sport in Canada award.

He is survived by his wife, Leida, two daughters, Mari Blafeld of Finland, and Mall Peepre of Ottawa, and one son, Juri, who is in his final year at Guelph's School of Landscape Architecture.

Professor Alexander Brodie

Funeral services were held in Guelph December 29 for Professor Alexander Brodie, Department of English. Professor Brodie died suddenly December 23. He was 54.

Professor Brodie joined the English Department in 1966. His areas of study were in old English, history of the language, and bibliography. He had recently developed an interest in the history of Canadian printing and publishing.

Professor Brodie is survived by his wife, Ann, and one son, Howard, 18, a first-year music student at the University of Toronto.

Robert Patten

Robert Patten, a volunteer firefighter at the University, who had been unconscious since 1970 from injuries received while on duty, died in the continuing care section of St. Joseph's Hospital. He was buried December 22 in Everton Cemetery.

Mr. Patten was injured March 10, 1970 when he joined the crew on the university fire truck which responded to a call at Ontario Veterinary College where a scrap truck was burning. At the corner of College Avenue and Gordon Street the fire truck was in collision with a produce truck. Mr. Patten was hurled along the highway. At the time of the accident he was 58 years old.

Mr. Patten is survived by his wife, Eleanor, a daughter, Mrs. Allan (Diane) Mabbott, a son, Kenneth, two grandchildren, two brothers, and a sister.



Non-credit Course Descriptions

Introduction



Professor K. MacKay, associate director, Academic Computer Services.

Many people of varied backgrounds are likely to be found using the facilities at a university computer centre. Quite often, because of a lack of familiarity with the computer installation, or because of an insufficient understanding of the fundamentals of computers and computer programming, these people are unable to make efficient use of the facilities available to them.

A user who is not aware of good programming techniques, or who is not well versed in fundamentals, may spend countless hours debugging a computer program and enduring many disappointments. The aim of the Institute of Computer Science (ICS) Training Program is to try to help these computer users to overcome their difficulties and to help them to use the computer facilities effectively.

The ICS Training Program consists of non-credit courses, seminars, and workshops designed to meet the needs of both experienced and new computer users. Where possible, films and video tapes are used to supplement the course material and provide further insight into the subjects.

The non-credit courses given by the Institute of Computer Science are free of charge. Credit courses in computing science are given by the Department of Computing and Information Science. For details call extension 2258.

Listed are descriptions of courses offered by the Institute of Computer Science to faculty, staff and graduate students. Students are expected to complete assignments which may be handed out by instructors to receive the full benefit of the course given. If you plan to attend any of the courses, please register with the Manuals Clerk, Ext. 3046.

General Courses

INTRODUCTION TO DATA PREPARATION & PROGRAMMING

Wednesday, Jan. 21 and Friday, Jan. 23 9:00-12:00 a.m.

This introductory course is specifically designed for faculty, staff, and graduate students who have little or no experience in using computers.

The course covers basic material and includes the following:

- a) how a computer works,
- b) how to design data input forms,
- c) fundamentals of computer programming, and
- d) data preparation including how to use a key-punch machine.

At the completion of the course, users should understand the basic concepts of programming and know how to prepare work for the computer. This course is not intended to give instruction in any computer language.

TEST SCORING SYSTEM

Wednesday, Jan. 29 1:30 — 4:30 p.m.

This course is for faculty who want to use the computer to score multiple choice examinations.

Topics discussed are the facilities and limitations of the Test Scoring System, coding of student name and answer cards, preparation of Job Control cards, job submission, error correction, and description of reports printed. Privacy and security measures are described. Course content is presented in sufficient detail to enable use of the system whether or not the faculty member has had prior computer experience. This course does not cover design of multiple choice questions.

There is no prerequisite.

PLOTTING TECHNIQUES

Tuesday, Mar. 16 and Thursday, Mar. 18 6:30 — 9:30 p.m.

Users who want to produce plots (graphs) using either the APL or batch facilities of the computer will be interested in this course.

The course will teach how to use the APL plotting packages as well as the CALCOMP routines. Exercises will be assigned to familiarize users with facilities available. If time permits, a group of special purpose plotting packages will be introduced showing such things as 3-D and contour graphing.

By the end of the course, students should be able to produce plots on either the APL terminal, the high speed printer or Calcomp plotter.

Time Sharing Courses APL

INTRODUCTION TO APL

Monday, Mar. 1, Wednesday, Mar. 3, and Friday, Mar. 5 1:30 — 4:30 p.m.

The purpose of this course is to introduce the user to APL. The course will teach the rudiments of the APL language so that the user may:

- a) sign on and use APL in desk calculator mode,
- b) enter and manipulate data,
- c) use and manage workspaces for storage of information, and
- d) use system commands.

The user will be expected to practice on the APL system between sessions. The student should also have a copy of one of the many books on APL. We recommend "APL/360 — An Interactive Approach" by Gilman and Rose.

APL FOR STATISTICAL ANALYSIS

Course 1 Thursday, Feb. 12 1:30 — 4:30 p.m.
Course 2 Tuesday, Mar. 9 6:30 — 9:30 p.m.

Designed for users who have previously attended "Introduction to APL" and wish to learn the use of APL for statistical analysis.

The user will be expected to practise on the APL statistical library and illustrate its use with several examples. At the completion of the course, the user should be able to run several of the statistical programs without any assistance.

Prerequisite is a basic knowledge of statistics and APL.

APL FOR UNDERGRADUATES

Monday, Feb. 16, Wednesday, Feb. 18, and Thursday, Feb. 19 6:30 — 9:30 p.m.

The purpose of this course is to introduce undergraduates to APL. The course will teach the rudiments of the language that will enable the student to:

- a) sign on and use APL in desk calculator mode,
- b) enter, manipulate and store data,
- c) use and manage workspaces for storage of information, and
- d) use system commands.

The student will be expected to practise on the APL system between sessions.

A COMPREHENSIVE COURSE ON APL/PLUS

A six-session course every Tuesday and Thursday evening from Jan. 20 to Feb. 5 6:30 — 9:30 p.m.

This comprehensive course is a study of one of the most concise, consistent, and powerful programming languages devised.

The course is designed as an introduction to:

- a) the rudiments of the APL language,
- b) the writing of APL programs, and
- c) the structure and use of the APL file system.

At the completion of the course, the student will be able to:

- i use APL in calculator mode,
- ii enter and manipulate data,
- iii use and manage stored workspaces,
- iv write and modify APL programs, and
- v store and retrieve large amounts of data from APL files.

The student will be expected to do assignments that will provide practice on the APL system. Students will also be expected to write an APL program which will be discussed in the last lecture.

The course is open to anyone at the University

interested in learning APL. A recommended text is "APL/360 — An Interactive Approach" by Gilman and Rose.

Time Sharing Courses TSO

WHAT IS TSO?

Friday, Jan. 30 1:30 — 4:30 p.m.

TSO (Time Sharing Option) is a general purpose time sharing facility allowing users to enter, store, modify and retrieve data through a terminal. The course will present a brief outline of the following:

- a) time sharing concepts as they apply to TSO,
- b) the scope of TSO and capabilities, and
- c) the type of applications TSO could be used for in the University environment.

Familiarity with OS batch processing is a prerequisite.



INTRODUCTION TO TSO

Monday, Feb. 9, Wednesday, Feb. 11 and Friday, Feb. 13 1:30 — 4:30 p.m.

This course is intended to familiarize the user with the many facilities of TSO and to provide detailed instruction in the following areas:

- signing on the system,
- command language syntax,
- creation and updating of on-line data sets,
- submission of computer jobs from a remote terminal for execution in batch, and
- execution of programs in the TSO region.

Prerequisite is a knowledge of Job Control Language (JCL).

INTRODUCTION TO TEXT EDITING

Tuesdays, Feb. 10, 17 and 24 9:00 — 12:00 a.m.

Text editing and formatting facilities available on the IBM 370/155 allow users to enter, store, modify and print textual material. This is an extremely useful facility for typing of reports, research papers and theses. The user with no knowledge of computing can add, delete, insert characters, words or lines in the text stored in the computer.

The course is designed primarily for secretaries and stenographers who are involved in typing reports or research papers. The three half-day course will cover:

- creating and deleting report files,
- entering and modifying textual material, and
- printing options.

There is no prerequisite.

Language Courses

JOB CONTROL LANGUAGE (JCL) & UTILITIES

Monday, Feb. 16, Wednesday, Feb. 18 and Friday, Feb. 20 9:00 — 12:00 a.m.

This introductory course is designed for users who must use the IBM/370 computer for processing data other than the available standard program packages. The purpose of JCL will be discussed, and students will be given instruction in the various types of JCL statements. An explanation will be given as to how JCL is processed by the computer. The course will include instruction on when and how to use specific utility programs. Note that all utilities will not be covered.

At the completion of the course, the student will be able to do standard tasks such as writing JCL, printing, copying, selecting and formatting data files.

SIMULATION LANGUAGE — CSMP

Mon., Feb. 23, Wed., Feb. 25, Thurs., Feb. 26, Mon., Mar. 1, and Wed., Mar. 3, 6:30 — 9:30 p.m.

Users who wish to simulate continuous processes on the IBM/370 will be interested in this course.

The course will begin with a general introduction to computer simulation and lead into the application and syntax of CSMP in particular. Programmed examples will be used to illustrate application areas and to provide knowledge of CSMP programming techniques.

By the end of the course students will be able to simulate a basic continuous system using CSMP.

A prerequisite is familiarity with Fortran programming.

INTRODUCTION TO SPSS

Monday, Feb. 9, Wednesday, Feb. 11 and Thursday, Feb. 12 9:00 — 12:00 a.m.

SPSS is an integrated system of computer programs for data analysis. It provides the user with a comprehensive set of procedures for data transformation, file manipulation and statistical analysis. These are all performed through the use of natural-language control statements requiring no programming experience on the part of the user. The statistical procedures available include cross-tabulation, regression and correlation analysis, factor analysis, reliability analysis and analysis of variance.

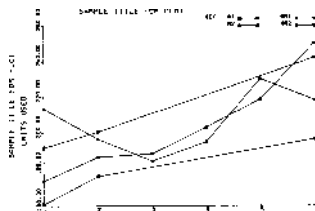
At the completion of the course, the user will have confidence in using this system. Prerequisite is a knowledge of basic statistics.

INTRODUCTION TO FORTRAN IV

Monday, Feb. 23, Wednesday, Feb. 25, Monday, Mar. 1 and Wednesday, Mar. 3 6:30 — 9:30 p.m.

This course is designed for users interested in obtaining a basic programming knowledge of the Fortran language. It will cover the basics of the language and students will be given programming assignments using the WATF IV system. At the completion of the course, students will be able to design, code, and debug their own WATF IV programs. Students attending the course should have a copy of the textbook "Fortran IV With Watfor and Watfiv" by Cress, Dirksen & Graham.

A prerequisite is an understanding of the concepts of computer programming.



Graphs similar to this, pictures, and 3-D graphs can be produced by Calcomp plotter. For information contact the Technical Counsellor, Room 211, ICS building.

Seminars

In addition to the courses being offered by ICS, a number of general interest seminars are held.

Details on the content and scope of the seminars are announced in the University News Bulletin and notices which are sent to University Departments.

Instructional Staff

Staff of the Institute of Computer Science participate in the training program as instructors. Whenever necessary, computer professionals from outside the University or from other departments may be used as lecturers.

Unscheduled Courses

Several courses which will not be offered this semester are:

Structured Programming,
Cluster Analysis (Clustan),
Introduction to PL/1,
Introduction to Mark IV.

ICS is prepared to make arrangements to give any of the scheduled or unscheduled courses to interested groups or departments.

Films and video tapes, such as basic computer concepts and languages, fundamentals of system analysis, and principles of file design, can be obtained for viewing. For a list of available material please contact the supervisor, Teaching Support Group, Ext. 3712.

Registration

To register for the courses or to obtain further information please phone the Manuals Clerk at Ext. 3046.

Course Schedule

Introduction to Data Preparation & Programming	Jan 21 & 23 9:00 — 12:00 noon
2 lectures	
Test Scoring System	Jan 29 1:30-4:30 p.m.
1 lecture	
Plotting Techniques	Mar 16 & 18 6:30-9:30 p.m.
2 lectures	
Introduction to APL	Mar 1, 3 & 5 1:30-4:30 p.m.
3 lectures	
AFL for Statistical Analysis	Feb 12 1:30-4:30 p.m. Mar 9 6:30-9:30 p.m.
1 lecture (given twice)	
APL for Undergraduates	Feb 16, 18 & 20 6:30-9:30 p.m.
3 lectures	
A Comprehensive Course on APL/Plus	Jan 20, 22, 27, 29 Feb 3 & 5 6:30-9:30 p.m.
6 lectures	
What is TSO?	Jan 30 1:30-4:30 p.m.
1 lecture	
Introduction to ISO	Feb 9, 11 & 13 1:30-4:30 p.m.
3 lectures	
Introduction to Text Editing	Feb 10, 17 & 24 9:00-12:00 a.m.
3 lectures	
Job Control Language (JCL) & Utilities	Feb 16, 18 & 20 9:00-12:00 a.m.
3 lectures	
Simulation Language CSMP	Mar 22 & 24 6:30-9:30 p.m.
2 lectures	
Introduction to SPSS	Feb 9, 11 & 12 6:30-9:30 p.m.
3 lectures	
Introduction to Fortran IV	Feb 23, 25, 26, Mar 1 & 3 6:30-9:30 p.m.
5 lectures	

Note: Students are expected to complete assignments which may be handed out by instructors to receive the full benefit of the course given.

Nutrition awareness to be promoted on campus

The Department of Student Affairs, in conjunction with the staff and students of the College of Family & Consumer Studies, has organized a series of events on food facts, designed to promote nutrition awareness among students.

Diane Goodwillie, Department of Student Affairs, says the Department has been concerned about the level of nutrition awareness of students, and especially those who cook for themselves. Many students do not have information or experience with preparation of food, choosing low cost, quick nutritious menus, organizing their shopping and cooking, and how their diet affects their sense of well-being, says Ms. Goodwillie. Two of Professor David Yeung's nutrition students, Jill Holden and Barb Morris, with Ms. Goodwillie, have developed a schedule of events for the winter semester to help students learn more about nutrition. You are invited to attend any of these events:

January 14 — Debate on Additives — sponsored by GO PIRG 7:30 p.m., Room 105, Physical Science building.

January 20 — Dean's Cook-Off — Dean Switzer, Dean Wardlaw, Dean Settle, Dean Elrick. 12:10 to 1:00 p.m., the Courtyard, UC.

January 22 — Kitchen Hints — A discussion on how to save time in the kitchen, how to use different pots and pans to your advantage, and how to cook quickly and still retain nutrients and taste. 12:10 to 1:00 p.m., Room 442, UC.

January 26 & 27 — Display in the Courtyard, University Centre. How to save time, money, and quality in preparing and cooking foods.

January 27 — Grocery Shopping Tips, 12:10 to 1:00 p.m., Room 001B, UC. Advantages and disadvantages of different stores, labels and additives, house brands and specials in

stores, organizing your shopping, and consumer behaviour.

February 3 — Money Saving Ideas, 12:10 to 1:00 p.m., Room 001B, UC. A discussion about buying in bulk, meat cuts, freezing, cooking in quantities and generally how to save money when making your own meals.

Food and Fitness

February 10 & 11 — Fitness Testing Clinic, Courtyard, UC. Check out your level of fitness. Display of snack foods and what they do to you.

February 12 — Diets and Fitness — Noon hour discussion and film with Professor J.E. Miles from Family Studies. 12:10 to 1:00 p.m., Room 001B, UC.

February 24 — Do We Need Meat? — The pros and cons of health foods. 12:10 to 1:00 p.m. Room 001B, UC.

To Be Announced — Seminar: Drugs or vitamins — can we treat illness with vitamin supplements? Time and place to be announced.

Cheap Food Feasts

March 2, 9, 16, 23, 30 — Noon Hour Demonstrations — How to cook different foods, cheap hotplate cooking suggestions: The Guelph Gourmet. Courtyard, UC.

TBA — Workshop: The Experience of Cooking — Demonstration and practice. Time and place to be announced.

For further information contact the Department of Student Affairs, level 3, UC, Ext. 3953.

CAMPUS BRIEFS

Meal cards

The Student Department Committee reminds everyone that the use of stolen meal cards or meal cards lost by another person is prohibited. The regulation was approved by the Board of Governors at their meeting November 27 and this regulation is in addition to the Student regulations distributed in August, 1975.

Harp seal

A doe-eyed white harp seal pup, curled up on St. Lawrence ice, is featured on the cover of National Geographic this month. *Life or Death for the Harp Seal* is written by Professor David M. Lavigne, Department of Zoology and the article is accompanied by 13 pages of photographs by William Curtsinger. Professor Lavigne's article includes results of the aerial census of harp seals in the western Atlantic. According to the survey, the pup count came to fewer than 200,000 — suggesting a total population — both adults and young of fewer than a million harp seals in the western Atlantic. The figure supports the view that production of pups has declined steadily in recent years, despite the reduction of hunting quotas and the ban on large sealing vessels in the Gulf of St. Lawrence. Look for Vol. 149, No. 1, January, 1976.

London semester provides wider horizons for learning

During the year-end break, 25 Guelph students crossed the Atlantic in order to be in London, England in time for the beginning of the winter semester. All of them have not less than two semesters of the B.A. program behind them and a minimum 70 per cent average.

The London semester was originally conceived two years ago by the B.A. Program Committee of Senate as a joint Arts/Social Science project designed to offer wider horizons and enriched experience to students in those departments. Reports from those who have already participated confirm that these objectives have been and are still being achieved. 'Exciting, intellectually stimulating, and creative' are the terms most often used by returning students and word-of-mouth has proved a most effective advertisement.

"The advantages are obvious" says Professor M.P. Sobol who is this year's co-ordinator of the London semester. "Students taking a Fine Arts course can see the paintings themselves rather than on slides and the same kind of direct exposure is available in music and drama. In the social sciences there is the intense enrichment which comes from direct interaction with another culture and this is something which works both ways in that the student not only comes into contact with whole new ways of life but as a result, gains new insights and perspectives into Canadian ways which he had previously taken for granted."

The student selects five courses from a wide range of options. Some of them are quite specific to London, for example, Music in London. A London tutor is provided with whom students attend specific concerts. Other courses are based on those followed by fellow students back in Guelph. The course outline is worked out for them by their home-based

professor. They know what ground they must cover, what local resources they are expected to use, which field trips they should take and the kind of experiences they should seek. Many of the courses are broken down into packages of two weeks duration and every student has specific papers to write which must meet deadlines.

Dr. Sobol's role as co-ordinator began back in March when he became involved in administrative preparations which included interviews with the students, both individually and as a group. Apart from acting as the central reference person for Guelph students in London he also conducts the co-ordinator's course which traditionally takes advantage of the environment and which, although not mandatory, most students attend. This year, 18 out of the 25 students are taking Dr. Sobol's course on social interaction designed to involve them both with one another and with the people of London.

Headquarters are centred in London House, a University of Guelph property and, ipso facto, part of the Guelph campus. Not all of the students will live there but it is one of the tasks of the co-ordinator to bring them together for shared experiences. Dr. Sobol's own apartment is also open house. Professor T.C. Williams, who is in London this year teaching a course on the philosophy of education, and other members of the Guelph faculty will be over there from time to time.

The overall cost to the student is approximately \$2,100, including fares, lodging, tuition fees, and such sundries as tickets to recitals.

"Students are subject to less direct supervision in London than they are in Guelph but this, if anything, only requires them to work harder," says Dr. Sobol. □

FACULTY ACTIVITIES

Professor Norma V. Bowen, Psychology, was on a recent speaking tour of the universities in the Eastern Provinces. Invited by the University of New Brunswick Faculty at Fredericton to be their main speaker in recognition of International Women's Year, she gave a public address entitled *Lest we forget*. While in Fredericton she was interviewed by the local CBC on what she thought was the significance of the International Women's Year. This interview was aired on the morning information program. Professor Bowen also gave a colloquium to the Psychology department on the Environmental influences on children's cognitive development. At Dalhousie University in Halifax, Nova Scotia, a few days later, she gave an address to faculty and administration titled *Are universities facing up to the challenge of hard times?* The talk was specifically chosen by the Dalhousie Faculty Association who sponsored the visit. Dr. Bowen who also spoke to the caucus of Dalhousie Women Faculty at a luncheon meeting, visited a local secondary school where she talked to the senior students about Being prepared for University. Professor Bowen, also recently attended the first National Social Science Conference, 1975, in Ottawa. The conference, which was organised by the Social Science Research Council of Canada, had as its theme Social science and public policy in Canada. As a social scientist and psychologist, Professor Bowen was invited to present the social scientist's view of sex role differences in general, and in particular, to analyse the Report of the Royal Commission on the Status of Women in Canada within the context of the social scientists' findings.

Professors Bill Braithwaite and Ted Gray, School of Agricultural Economics and Extension Education, were installed as the new editors of the Canadian Agricultural Economics Society journal at a meeting of the CAES executive in Toronto. Professor Arthur Lerner is to act as associate editor. The journal will now be printed by the University of Toronto press and mailed directly by them to members. It is hoped that this new arrangement will avoid the long delays experienced in the past between the submission and publication of articles. The proceedings of the workshops and annual meetings should be in the hands of members within about six weeks of the events themselves. CAES members are to be polled

shortly as to changes they would like to see made in the content and other features of the CJAE.

Professor D.M. Irvine, Food Science, has been selected to serve on the editorial board of the Journal of Milk and Food Technology. This journal is the official publication of the International Association of Milk, Food and Environmental Sanitarians.

Professor S.H. Lane, School of Agricultural Economics and Extension Education, addressed the annual award nights and seed shows of the Muskoka and Parry Sound Soil and Crop Improvement Association at Bracebridge, and at Trout Creek on the topic *Marketing from the farmers' point of view*.

Professors Larry Martin and Richard Haack, School of Agricultural Economics and Extension Education, presented the final report on their analysis of supply management in the beef sector to the Ontario Beef Improvement Association, Toronto, recently.

Professor Karl Meilke, School of Agricultural Economics and Extension Education, attended the USDA Outlook Conference in Washington D.C. recently.

Professors E.L. Menzie and T.P. Phillips, School of Agricultural Economics and Extension Education attended the two day conference on Keynes, Cambridge and the General Theory, London, Ontario, 9-10 October.

Professors W.C. Pfeiffer and L.J. Martin, School of Agricultural Economics and Extension Education, with **Professors J.W. Wilton** and J.B. Stone, Department of Animal and Poultry Science, and Professor T.B. Daynard, Department of Crop Science, conducted an afternoon symposium on *The utilization of computers in OAC research and service programs for the IBM sponsored university professor's tour*. A group of 35 South American and Asian professors visited the campus for two days.

Professor T.P. Phillips, School of Agricultural Economics and Extension Education presented a paper *Some recent developments in Thai politics at the two day conference on Southeast Asia after the restoration of peace in Indo-china*.

Professor T.K. Warley, School of Agricultural Economics and Extension Education gave a paper, *National and international dimensions of farm and food policy*, at a conference on *The search for a US food policy*, University of Missouri, Columbia, Mo.

Professors P.K. Basur, M.K. Ghatnagar and S. Yamashiro, Biomedical Science attended on invitation a symposium and workshop on nicotine and carbon monoxide sponsored by the Kentucky Tobacco Research Institute, University of Kentucky, Lexington, Kentucky. Professors M.K. Bhatnagar, S. Yamashiro and Dr. T. Umemura, Department of Biomedical Sciences, on invitation attended and presented papers at the 25th meeting of the Canadian Committee on Fats and Oils held in Ottawa, sponsored by the National Research Council of Canada. Professor Ghatnagar presented a paper entitled *Nature of lesions produced in avian species by feeding rapeseed oil*. Professor Yamashiro's paper was titled *Development of lesions in rats and pigs fed rapeseed oil*.

Professor F.F. Gilbert, Department of Zoology, has been asked to serve as a member of the Scientific and Technical Subcommittee which will serve an advisory role to the Federal Provincial Committee for Humane Trapping. Other members of the Subcommittee include Lloyd Cook, Ontario Trapper's Association; Neal Jotham, Canadian Association for Humane Trapping; Roy Newcombe, Engineering Department, McMaster University, and Bruce Stephenson, Ontario Ministry of Natural Resources.

PUBLICATIONS

Fathalla, M.A., R.M. Liptrap and H.D. Geissinger, 1975. *Combined scanning electron and light microscopy of biopsy samples of bovine uterus*. Canadian Journal of Comparative Medicine 39(4): 457-461. (Biomedical Sciences)

Lavigne, D.M. and K. Ronald, 1975. *Pinniped visual pigments*. Comp. Biochem. Physiol. 52B: 325-329. (Biomedical Sciences)

Mace, T.F. and R.C. Anderson, 1975. *Development of the giant kidney worm, Dioctophyma renale* (Goeze, 1782) (Nematode: Dioctophymatoidea). Can. J. Zool. 53: 1552-1568 (Zoology)

A.H. Meek, W.R. Mitchell, R.A. Curtis and J.F. Cote, 1975. *A Proposed Information Management and Disease Monitoring System for Dairy Herds*. Can. Vet. Journal, Vol. 16, (II) P: 329-334. (Veterinary Microbiology and Immunology)

Meilke, Karl, D., 1975. *Nerlove's theory of adaptive expectations: confusion or not?* Journal of Agricultural Economics, Vol. XXVI 3, pp. 403-404. (School of Agricultural Economics and Extension Education)

Powell, John T., 1975. *Leadership*. The Journal of Physical Education, Vol. 73, No. 1, pp. 16-23. (Human Kinetics)

Watson, T.G. and R.C. Anderson, 1975. *Seasonal changes in louse populations on white-tailed deer (Odocoileus virginianus)*. Can. J. Zool. 53: 1047-1054 (Zoology)

Yarmey, A.D., 1975. *Introspection and imagery reports of human faces*. Perceptual and Motor Skills, 41, 711-719. (Psychology)

Research in energy conservation

Guelph is one of eight Ontario post-secondary educational institutions participating this year in a \$531,000 project to reduce energy consumption, and to research methods of conserving energy in campus buildings.

The project is co-ordinated by the Ministry of Colleges and Universities and forms part of the Ontario Government's Energy Management Program. Other universities involved are Carleton, Laurentian, Trent, Waterloo, Western and York and one community college, Fanshawe and they will conserve an estimated \$164,000 worth of energy this year.

The project involves the monitoring of savings achieved through the use of highly specialized controls being installed in campus buildings. The results will be made available to physical-plant personnel at post-secondary institutions throughout Ontario. The project is a natural continuation of "first line" conservation measures, such as reduced lighting,

which involve little or no capital cost.

As part of the project, the Ministry of Colleges and Universities is also compiling an energy conservation check-list and bibliography for distribution to college and university personnel.

The Ministry of Colleges and Universities is one of 14 Ontario ministries participating in the Energy Management Program which is designed to reduce by one-third Ontario's growth in demand for energy over the next decade. The overall Energy Management Program is co-ordinated and funded by the Ministry of Energy. The objective of the program is, by 1980, to have shaved \$1 billion annually from Ontario's ever-increasing energy bill.

The Ministry of Energy plans to reach this goal through a co-ordinated program of research and the provision of practical information to all sectors of Ontario's economy. []

Next Week at Guelph

THURSDAY, JANUARY 8

Registration.

Art Exhibition — MAJOR SASKATCHEWAN ARTISTS. Continues to January 30, McLaughlin Library.

TV — SPOTLIGHT ON UNIVERSITY OF GUELPH, Cable 8 at 6:15 p.m.

Worship — ROMAN CATHOLIC MASS, 12 noon, Chapel, UC.

Pub — ALL STAR DISCO BAND AND MACKENZIE, 8 p.m. to 1 a.m., Peter Clark Hall, UC.

FRIDAY, JANUARY 9

Registration.

TV — SPOTLIGHT ON UNIVERSITY OF GUELPH, Cable 8 at 5 p.m.

Pub — MAINLINE — 8 p.m. to 1 a.m., Peter Clark Hall, UC.

Free Film — ADVENTURES OF DON JUAN, 7 and 9:30 p.m., Room 105, Physical Sciences.

SATURDAY, JANUARY 10

Pub — LETTER MANS PUB — 8 p.m. to 1 a.m., Peter Clark Hall, UC.

SUNDAY, JANUARY 11

Worship — ROMAN CATHOLIC MASS, 11 a.m., War Memorial lounge.

Cine-Series — THE STING, 7 and 10 p.m., War Memorial Hall.

MONDAY, JANUARY 12

Sale — CO-OP PRINT SALE, 9 a.m. to 5 p.m., Courtyard, UC. Continues to January 14.

Pub — JANI & EYE, 8 p.m. to 1 a.m. Peter Clark Hall.

Video — MAGICAL MYSTERY TOUR, 11 a.m. to 3 p.m., Room 103, UC.

TUESDAY, JANUARY 13

Worship — ROMAN CATHOLIC MASS, 12 noon, Chapel, UC.

Interview Schedule — CANADIAN IMPERIAL BANK OF COMMERCE, permanent employment interviews; UPJOHN PHARMACEUTICALS, application deadline for prescreening. Department of Career Planning and Placement.

Pub — SKI CLUB, 8 p.m. to 1 a.m., Peter Clark Hall, UC.

Film — INTERNATIONAL FILM SERIES, 12 noon to 1 p.m., Room 103, UC.

Projections — MR. SYMBOL MAN, 12 noon to 1 p.m., Room 442, UC.

WEDNESDAY, JANUARY 14

Fellowship — CAMPUS CHRISTIAN FELLOWSHIP, 8 p.m., Chapel, UC.

Worship — ROMAN CATHOLIC MASS, 5 p.m., Chapel, UC.

Interview Schedule — JOHN DEERE WELLAND WORKS, permanent employment interviews for students in engineering; RALSTON PURINA, briefing sessions. Department of Career Planning and Placement.

Debate — CHEMICAL FOOD ADDITIVES, sponsored by the Guelph chapter of the Ontario Public Interest Research Group (GO-PIRG). 7:30 p.m., Room 105, Physical Sciences.

Easy Wednesday — HARDY & MACDONALD, 12 noon to 1 p.m., Courtyard, UC.

Pub — OAC '77, 8 p.m. to 1 p.m., Peter Clark Hall.

Video — MAGICAL MYSTERY TOUR, 11 a.m. to 3 p.m., Room 103, UC.

THURSDAY, JANUARY 15

Tele-Talk — 12 noon to 1 p.m., Room 103, UC.

Pub — MEADOWS, 8 p.m. to 1 p.m., Peter Clark Hall, UC.

Interview Schedule — Xerox, permanent employment interviews; JASPER PARK

LODGE, application deadline for prescreening for summer positions. Department of Career Planning and Placement.

TV — SPOTLIGHT ON UNIVERSITY OF GUELPH, Cable 8 at 6:15 p.m.

Worship — ROMAN CATHOLIC MASS, 12 noon, Chapel, UC.

Library Hours

The following Library hours will be in effect as of January 12.

McLaughlin Library

Monday to Thursday	8:30 a.m. to midnight
Reference service	8:30 a.m. to 9:00 p.m.
Friday	8:30 a.m. to 6:00 p.m.
Reference service	8:30 a.m. to 4:45 p.m.
Saturday	1:00 p.m. to midnight
Limited service	1:00 p.m. to 5:00 p.m.
Sunday	1:00 p.m. to midnight
Limited service	1:00 p.m. to 9:00 p.m.

Veterinary Science Division (effective January 5)

Monday to Thursday	8:30 a.m. to 10:00 p.m.
Friday	8:30 a.m. to 5:00 p.m.
Reference service (Monday — Friday)	8:30 a.m. to 5:00 p.m.
Saturday and Sunday	1:00 p.m. to 10:00 p.m.

PERSONALS

For Sale — Walnut three-part wall unit, two twin-bed headboards, (black), 3978 or 843-2570; Bed-Couch, 822-1362; 1966 Dodge Polara Slant 6, baby's high chair, crib, portable pressure gate, training seat, 16" black and white television, 8-track tape record play deck, Garrard turntable with magnetic cartridge, single bed, black vinyl couch, converts into bed, desk and chair, 824-2970; Noresco stereo system, (Dual turntable and Noresco speakers), 3057 or 836-5664; Boy's size 10-12 hockey shirt, pants with suspenders, shin-guards with straps, gloves, stockings with garter belt, shoulder pads, helmet, mouth guard, boy's skates, size 2, girl's figure skates, ladies size 4, 3087 or 821-6974 after 5 p.m.; 22" Viking black and white console television, 3351; Fiat 124 wagon, 822-0609; Umbrella, electric iron, double bed mattress, folding chess table, chesterfield, dining table, wooden stool, wooden study desk, portable dish wahser, portable washing machine, winter shoes, winter coats, 824-9845 after 5 p.m.

Wanted to buy — Books by C.G. Jung, collected works, 658-9938, after 6 p.m.

Accommodation Available

For Sale — Three-bedroom home, 824-6168.

For Rent — One bedroom apartment, furnished, Eden Mills, 2183; Single and double bedroom, furnished, to June, 1976, 2455 or 836-0364; Four bedroom house in the University Village. Faculty member going overseas for 18 months beginning March. Preferably a visiting faculty or senior girl students, 2650 or 824-1303. Garage, furnished rooms, near University campus, 824-9845 after 5 p.m.; Burlington townhouse, available January 23, 2686 or 416-639-9368. Furnished apartment to sub-let, 1 bedroom, underground parking, 2785 or 824-0392.

Goods and Services

Student wanted — To live in and babysit one-year old boy, 823-1263 after 5 p.m.

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



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