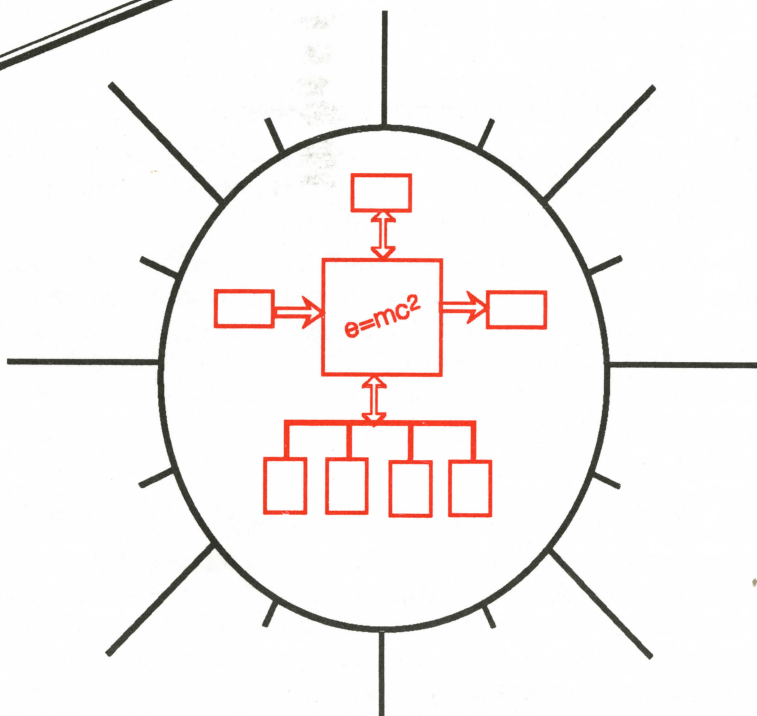


DEPARTMENT OF COMPUTING SCIENCE



The University College of the Cariboo
Kamloops, B.C.

Computing Science

↔ What is Computing Science?

Although Computing Science is often thought of as the art of Computer Programming, many activities in the area of Computing Science are not programming. For example, there's hardware design, system architecture, operating system structure, designing a database application, and validating models.

The notion that "computing science equals programming" is misleading. On the other hand Computing Science is the systematic study of algorithmic processes—their theory, analysis, design, efficiency, implementation, and application—that describe and transform information. The fundamental question underlying all of Computing Science is, "What can be efficiently automated". This discipline was born in the early 1940's with the joining together of algorithm theory, mathematical logic, and the invention of the stored-program computer." (Source: *ACM Denning Report on the Curriculum in Computing Science-1989*)

↔ Why study Computing Science?

There are several good reasons for taking Computing Science: it's interesting, there are promising job opportunities, and demand is high for Computing Science graduates.

Job opportunities are found in the following areas: System Analysis; Research and Development; Telecommunications; Lab Demonstrating; Computer Services; Sales; Manufacturing; Computer Design; Software Engineering (Personal Computers/Mainframes); Management Information Systems Development; Graphics; Computer Programming; and Robotics.

↔ Why take Computing Science at Cariboo?

Some good reasons for taking Computing Science at Cariboo rather than another university include: lower costs than at any other university in BC; smaller class sizes than at other universities; better access to computers; better accessibility to instructors; and instructors that have strong academic qualifications and practical experience.



Set in the beautiful rolling hills of Kamloops, the Cariboo campus offers students a relaxed, academic environment. Small class sizes, personalized instruction, and approachable instructors create a desirable learning environment. Always in touch with the community, Cariboo answers the needs of the regional business sector.

↔ Our Programs

The Department of Computing Science at Cariboo provides high quality education in three areas of instruction. One leads to a degree in Computing Science, the second leads to a Diploma in Computer Systems, Operations and Management, and the third provides service courses to other areas.

↔ University Degree Program

As part of the university degree program the department teaches 1st, 2nd and 3rd year university level courses. The first and second year courses are transferable to all three universities in B.C. as well as some in Alberta. Third year courses are also transferable to UBC, and are taught under the supervision of the Department of Computing Science at UBC. In the future, it is planned to offer the UBC degree at Cariboo.

The prerequisite for entering first year of Computing is a B in Math 12 or successful completion of Computer Science 12 (CS 12). A good indication of potential success in the university degree program is ability in Math and Physics.

↔ Computer Systems: Operations & Management (CSOM)

This two year diploma program prepares students for careers in Information Systems as Programmers, System Analysts, Data Base Analysts, or related positions in Data Processing. The Computer Systems: Operations and Management Program (CSOM) is designed to produce graduates to become productive employees immediately, and have the breadth of background necessary for advancement as their career progresses.

Students completing the program may be hired as the only computer person in a small business or they may begin their career in a junior position with a large data center. All graduates have solid experience



Professional Experience

Instructor, Cariboo University College, 1986-present
Manager of Capital Budgeting, AGT, 1986
Manager of Engineering Economics, AGT, 1982-1986
Manager in Data Processing, AGT, 1980-1981
Systems Analyst, AGT (Alberta Government Telephones), 1976-1979
Instructor, Medicine Hat College, 1971-1975
Researcher, Atomic Energy of Canada 1966
Researcher, Department of Bio-Physics, University of Toronto, 1964

Professional Affiliations

Professional Engineer (APEGGA, Alberta)

Teaching Area

Mainly in the Academic area



Surinder Dhanjal, P.Eng.

Post-Secondary Education

M.Sc. (Computation), McMaster University,
1988
M.A.Sc. (Electrical Eng.), University of Windsor,
1980
B.Sc.Eng. (Electrical), Panjab University, 1971

Research Interests

Numerical Computation
Software Engineering
Digital Signal/Speech Processing
Programming Languages
Data Structures

Professional Experience

Instructor, Cariboo University College, 1989-present
Assistant Professor/Lecturer (Computing Science, University of
Alberta), 1985-1989
Plant Process Control Engineer/Design Manager (Procter & Gamble,
Alberta), 1981-1984
Research Assistant (Electrical Engineering, University of Windsor),
1980-1981
Editor (Watno Dur Publications, Vancouver/Edmonton), 1983-1984
and 1973-1977



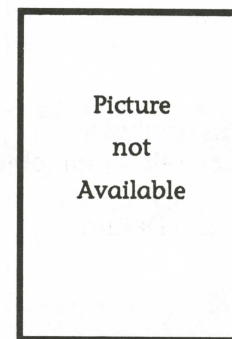
Mine Surveyor (Granduc Copper Mines, Stewart), 1973-1974
Electrical Engineer (Jindal Electricals, India), 1971-1972

Professional Affiliations

Professional Engineer (APEGGA, Alberta), member ACM (U.S.A.)

Teaching Area

Mainly in the Academic area



Gordon C.D. Eekman

Post-Secondary Education

M.A. (Planning), University of B.C., 1976
M.Sc. (Mathematics), University of B.C., 1970
B.A. (Mathematics), University of B.C., 1968
B.Sc. (Biology), University of B.C., 1964

Research Interests

Computer Graphics, Parallelism in Syntax and Semantics amongst
Mathematics, Computing Science and Verbal Language,
Algorithmic and Structural Parallelism amongst Mathematics,
Computing Science and Biology.

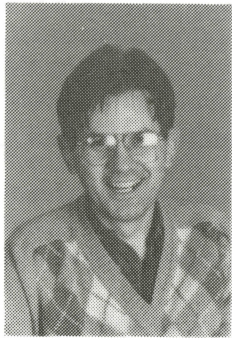
Professional Experience

Instructor, Cariboo University College, 1985-present
Instructor, Micro Computers and Mathematics, Kwantlen College,
1983-1985
Instructor, Mathematics, BCIT, 1980-1986
Instructor, Mathematics and Biology, Vancouver Community
College, 1979-1985
Teaching Assistant, Planning, UBC, 1975
Consultant, Acoustical Consultants, 1974
Research Officer, Planning, Government of B.C., 1972-1973
Defence Scientific Service Officer, DRB, 1970-1971

Teaching Area

Mainly in the Academic area





Don Johnson

Post-Secondary Education

Various business and computing courses
through IBM, COMMON, CIPS, etc.,
1967-present
B.Sc. (Honours), University of British Columbia,
1967

Research Interests

Areas of interest is data base systems of systems analysis.
Consulted in and installed several systems using relational (object-oriented) data base approach.
Developed Extension Services course in Data Base Design
(YMCR 207).

Professional Experience

Instructor, Cariboo University College, 1985-present
Chairperson, Computing Department, 1988-1991
Manager of Information Services, City of Kamloops, 1978-1985
Supervisor of IS, Lornex Mining Corp., 1974-1978
Systems Engineer, IBM Canada Ltd., 1967-1974

Professional Affiliation

CIPS Member

Teaching Area

Mainly in the Careers (CSOM) area



Brenda Mathews, ISP **(Chairperson of Department)**

Post-Secondary Education

B.A. (Honours, Computing) University of Guelph,
1974

Research Interests

Artificial Intelligence
Decision Support Systems
Information Resource Management

Professional Experience

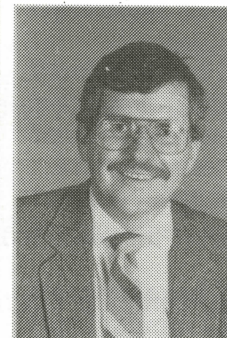
Instructor, Cariboo University College, 1981-present
Faculty Representative on Executive of CIPS (Canadian Information Processing Society), 1987-1991
President, Faculty Association at Cariboo College, 1989-1991
Lecturer, Athabasca University, 1978-1980
Systems Analyst, Alberta government, 1977
Systems Analyst, Audit Services Bureau, Ottawa, 1976
Computer Consulting with Data Logic, Ottawa, 1975-1976
Programming, Fiberglas Canada, 1973
Programming, University of Guelph, 1971-1973

Professional Affiliation

CIPS - Local Faculty Representative

Teaching Area

Mainly in the Careers (CSOM) area



Jack Mathews

Post-Secondary Education

B.A. Mathematics, University of Guelph, 1973

Research Interests

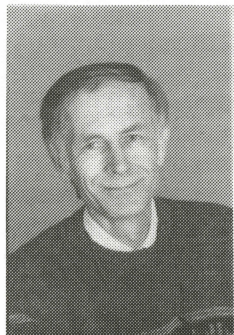
Project Management
Professionalism in Computing
Computer Assisted Systems Engineering

Professional Experience

Instructor, Cariboo University College, 1981-present
CSOM Coordinator, Cariboo University College, 1981-present
Chairperson, Computing Department, Cariboo University College,
1983-1988
President, Kamloops Chapter, Canadian Information Processing Society,
1981-1983
President, Cordel Consulting Ltd., 1979-1981
Project Manager, Branch Manager, Data Logic Canada, 1974-1979
Programmer, Systems Analyst, Co-ordinator, University of Guelph,
1968-1974

Professional Affiliation
CIPS

Teaching Area
Careers (CSOM) area



Richard (Ryszard) F. Poweska

Post-Secondary Education

Ph.D. (Computer Science), Technical University
of Wroclaw, Poland, 1970

M.Sc. (Computer Engineering), Technical
University of Wroclaw, Poland, 1965

Research Interests

Fault-Tolerant Computing and Computer Diagnosis

Theory of Computation

Artificial Intelligence: Knowledge Representation and Expert System

Professional Experience

Instructor, Cariboo University College, 1989-present

Scientific Consultant, University of Toronto, Centre for Large Scale
Computations, 1989

Assistant Professor, Yarmouk University, Jordan, Computer Science
Dept., 1984-1989

Assistant Professor, Basrah University, Iraq, Computer Science
Dept., 1980-1984

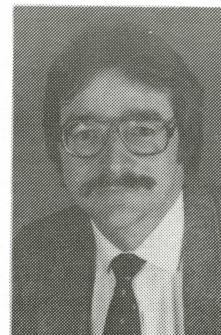
Assistant Instructor/Instructor Assistant Professor at Technical
University of Wroclaw, Poland, Computer Design Dept. and
Institute of Engineering Cybernetics, 1965-1980

Professional Affiliation

IEEE, Computer Society (IEEE), Canadian Society for Electrical and
Computer Engineering

Teaching Area

Mainly in the Academic area



Bernie Warren

Post-Secondary Education

M.Sc. (Engineering), University of Waterloo, 1984

B.Sc. (Forestry), University of Toronto, 1979

Certified installer of Max-Microcomputer based
manufacturer resource planning system.

Research Interests

Application of computerized tools for decision making

Logistics analysis and distribution

Computer simulation — manufacturing

Financial planning

Micro-computer modeling

Operations research

Professional Experience

Instructor, Cariboo University College, 1989-present

Senior Consultant, Decision Support Group, Ernst and Young
Management Consultants, 1984-1989

Partner, Amik Forest Consultants, 1979-1982

Programmer/Analyst, Ontario Ministry of Natural Resources

Professional Affiliations

Past Program Chairman, Canadian Operational Research Society

Member, Canadian Forest Products

Member, Canada Games Information Systems Committee

Board of Directors, Cariboo College Foundation

Board of Directors, Child Development Society

Teaching Area

Mainly in the support area, joint member with Commerce and
Economics Faculty



⇒ Summary

The advantages of coming to Cariboo rather than going to one of the other major universities include **lower cost, smaller class sizes** and **easier access to instructors**. Credit will be equivalent to that obtained at the other universities.

The computing facilities at Cariboo are among the best at educational institutions in B.C. and also the most accessible. Students will also benefit from the **world wide scholarly reputation of UBC** and receive all the other benefits that an institution like Cariboo has to offer since upper level courses come directly from UBC.

⇒ Sources of Information

For more information you may contact any of the instructors. Specifically, we invite you to contact:

Brenda Mathews — Chairperson of the Department

for information on all programs

Phone: 828-5224

Jack Mathews

for information on the CSOM program

Phone: 828-5214

Ralph Brouwer

for information on the academic program

Phone: 828-5219

The Admissions Office

for general Application for Admission procedures, packages and information.

Phone: Switchboard (604) 828-5000 **or**

Toll free (in B.C. only) 1-800-663-2955.

⇒ Mailing Address

ADMISSIONS OFFICE

Cariboo College

P. O. Box 3010

Kamloops, B. C.

V2C 5N3

