

INFORMATION TECHNOLOGY

Department of Computer Science and Mathematics

FACULTY

ASSOCIATE PROFESSOR(S)

Y. Feng, B.E. (Anhui), M.E. (Chinese Academy of Sciences), Ph.D. (Montreal);
G. Townsend, B.Sc. (Lake Superior State), M.Math (Waterloo), Ph.D. (Graz, Austria);
S. Xu, B.Sc., M.Sc. (Peking), M.Sc. (Windsor), Ph.D. (Liege), Ph.D. (Wayne State)

ASSISTANT PROFESSOR(S)

G. W. Davies, B.Eng., M.Eng. (Royal Military College);
E. James, B.Sc. (Texas), Ph.D. (Iowa State);
M. A. Garcia-Ruiz, B.Sc., M.Sc. (University of Colima), Ph.D. (University of Sussex, UK)

FACULTY, CROSS-LISTED WITH OTHER DEPARTMENTS

F. J. J. MacWilliam, B.A. (Laurentian), M. Math. (Waterloo), M. Ed. (Victoria),
B. Ed. (Laurentian - Nipissing), Adjunct Professor, Mathematics

ADJUNCT PROFESSOR(S)

F. Coccimiglio, B. A. (Laurentian -Algoma);
D. Hammond, B.Arch. (Carleton);
S. Narayan, B.Sc. (Banaras Hindu), M.Sc. (California-Riverside), Ph.D. (Waterloo);
K. Peltsch, B.Math. (Hons) (Waterloo), M.Sc. (Western Ontario), M.B.A. (Lake Superior State);
C. Whitfield, B.Sc. (Eng), M.Sc. (Queen's), Ph.D. (Case Western Reserve)

SESSIONAL FACULTY

M. DeFazio, B.Sc.(Hons) (Brock), M.A. Ph.D. (York);
M. Lajoie, B.A., B.COSC. (Hons) (Laurentian-Algoma);
R. Pepin, B.Sc. (Quebec-Trois-Rivieres), B.Ed. (Laurentian), M.Ed. (Toronto), Ph.D. (Laval);
S. Silberberg-Pochtaruk, B.Sc. (Laurentian-Algoma), M.MSc. (Waterloo)

PROFESSOR EMERITUS

M. A. Keppel-Jones, B.Sc. (Natal), B.A. (Hons) (Toronto), M.Sc. (Queen's), Ph.D. (Cornell);
J. J. Rajnovich, B.A. (Hons), M.A. (Toronto), B.Sc. (Lake Superior State), M.Sc. (McMaster), Ph.D. (Western Ontario)

Certificate in Information Technology

This certificate program requires 30 university credits, including:
COSC 1046 Introduction to Computer Science I
COSC 1047 Introduction to Computer Science II
COSC 2006 Data Structures I
COSC 2307 Database Programming

Or

COSC 2956 Internet Tools
COSC 3707 Techniques of Systems Analysis
ITEC 2706 Fundamentals of Information Technology
ITEC 2707 Business Strategy, Architecture and Design
ITEC 3506 Software Engineering
ITEC 3706 Managing Information Technology
MATH 1056 Discrete Mathematics I

COURSE DESCRIPTIONS

ITEC 2706 Fundamentals of Information Technology and Systems

This course is designed to give the student a thorough and practical understanding of the hardware, system software and application software used as the information technology infrastructure in the modern organization. Topics include computer hardware, system software, networking and application software. Case studies and labs are used to provide the student with practical applications of the theory. *Prerequisites: COSC 1046 or COSC 1702. (LEC 3, LAB 1) (3 cr)*

ITEC 2707 E-Business Strategy, Architecture and Design

The course is a study of organizational strategy and networked information technologies used to implement a rich variety of business models in the national and global contexts. These strategies and technologies provide linkages connecting individuals, businesses, governments, and other organizations. The course provides an introduction to e-business strategy and the development and architecture of e-business solutions and their components. *Prerequisite: ITEC 2706. (LEC 3) (3 cr)*

ITEC 3506 Software Engineering

This course examines methodologies for design, implementation and maintenance of very large programs. The material also covers development and use of software and support systems with an information technology perspective. *Students may not retain credit for both ITEC 3506 and COSC 4506. Prerequisite: COSC 2006, 2947 or permission of the department. (LEC 3) (3 cr)*

ITEC 3706 Managing Information Technology

This course examines the current trends and management issues associated with information systems and information technology within organizations of local, national, and international scope. Students will critically analyze the material related to IT management and consultancy, and present persuasive arguments from it in both oral and written forms. Areas studied will include topics such as: the models for computer based information systems, IT organizations and structure, project management in information technology, ethics in information technology, IT strategy and Alignment, and new technology adoption. Case studies are used. *Prerequisite: ITEC 2707. (LEC 3) (3 cr)*