FACULTY OF graduate studies
UNIVERSITY OF MANITOBA

Faculty of Graduate Studies
University of Manitoba
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Winnipeg, Manitoba
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http://umanitoba.ca/graduate_studies

The Department of Computer Science at the University of Manitoba offers programs leading to a Doctor of Philosophy degree (Ph.D.), a Master of Science degree (M.Sc.), and a pre-master's program to qualify students for the master's program. The first Ph.D. student graduated in 1973; the first M.Sc. students graduated in 1970.

Program Description

Masters: Two options are available for obtaining the Master's degree: the thesis option, in which a student is required to submit a dissertation in addition to taking courses; and the coursework option in which the student, in addition to taking courses, must pass a comprehensive examination. Thesis option requirements include a minimum of 12 credit hours of course work. All credit hours must be at the 700 level. The student will not normally be permitted to take more than 6 credit hours in any one major area; any exceptions must be approved by the GSC (major areas are defined by the comprehensive examination syllabus). Coursework option requirements include a total of 24 credit hours of course work made up of: Major subject: 18 credit hours at the 700 level; Ancillary subject(s): 6 credit hours at the 400 level or above.

Doctoral: A minimum of 12 credit hours of courses at the 700 level is required beyond the Master's degree. Within the first 2 years of the program, the student is expected to have satisfied the qualifying examination requirements, have an Advisory Committee and an approved topic, have completed most of the coursework requirements, and have made substantial progress on his/her research topic. The GSC will appoint the student's Advisory Committee, taking advice from the student's supervisor. When these criteria are met, and at least 6 months prior to graduation, the Advisory Committee will administer the candidacy exam.

Students in M.Sc. or Ph.D. programs are required to attain a minimum of C+ in each course for graduate credit. There is no language reading requirement for either program.

Research Interests

Algorithms and Complexity, Artificial Intelligence and Expert Systems, Combinatorics, Computer Communications and Networking, Computational Graphics, Databases and Data Mining, Graph Theory, Simulation, Software Architecture, Robotics, Parallel and Distributed Systems, Human Computer Interaction, Natural Language Processing, Multimedia, Sensor Networks, Computational Finance

Research Facilities

• Autonomous Agents Lab

• Advanced Networks Lab

• Database and Data Mining Lab

• Heterogeneous Distributed Computing Lab

• Computational Finance Lab

• Wireless Sensor Networks Lab

• Natural Language and Knowledge Representation Lab

• Multimedia Systems Lab

• Parallel and Distributed Systems Lab

• Human-Computer Interaction Lab

• Software Architecture and Systems Integration Lab

• Graphics Lab

• Expert Systems Lab

• Population Analysis Lab

Admissions Information

Admission to graduate programs is competitive. A combination of factors is taken into consideration in the decision to admit an applicant:

• The past performance of the applicant and referees' assessments.

• The capacity of the Department of Computer Science to provide the program of studies and research requested by the applicant.

• The availability of a faculty member competent to supervise the program of studies and research of the applicant.

Students must have a first degree with a cumulative grade point average of 3.0 or better in the last two years (60 credit hours) of coursework. It is important to note, however, that applicants normally need a grade point average of 3.5 in order to be admitted, due to space considerations.

Funding Opportunities

Along with the University of Manitoba Fellowship, support may be available through research grants. In addition, all students are encouraged to apply for TA and marking positions.

Contact:

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DEPARTMENT OF COMPUTER SCIENCE

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