



FACULTY OF GRADUATE STUDIES

# APPLIED COMPUTER SCIENCE AND SOCIETY (MSc)

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The Master of Science (MSc) in Applied Computer Science and Society focuses on issues of technology and the ethical, human, and social aspects of computing. We offer courses in four core clusters that represent frontiers of the discipline: Information Representation, Search and Management, Intelw [,-1n.1 ofontinnu5 TJ0 Tc 0 Tw (: )TjEMC /Span AMCID 6 BDC 0.49 g/TT2 1 Tf11.573 0 Td( )

subjects in Cloud Computing. It gives an overview of Cloud Computing and explains its main service delivery models, deployment architectures, and key enabling technologies such as virtualization, parallel computing, and Big Data analytics. Students will acquire considerable knowledge in Cloud data and resource management, design patterns, security and privacy challenges and solutions, as well as commercial and open-source Cloud systems.

**THEORY AND PRACTICE OF SECURITY AND PRIVACY** - This course provides students with an understanding of theoretical and practical aspects of security and privacy and opens them up to the

current research challenges in this area. Topics include classical cryptography, symmetric encryption, public key cryptography, key distribution mechanisms, digital signature, entity and message authentication, access control, multimedia security and digital right management, secret sharing, physical security, privacy preserving techniques such as data aggregation, perturbation, k-anonymity and l-diversity.

### **MORE SAMPLE COURSES**

- **Complex Adaptive Systems**
  - **Web and Document Databases**
  - **Advanced Data Structures**
  - **Image Processing**
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### **ADMISSION REQUIREMENTS**

Students may be admitted if they hold an Honours or 4-year Bachelor of Science degree in Applied Computer Science, Computer Science and/or Engineering, Mathematics or equivalent and if they present a suitable selection of courses. Minimum Entry Requirement: Overall GPA of 3.0. For the thesis track, the student must also have a supervisor selection prior to admission.

**NOTE:** Students applying for the *course-based* track ARE NOT REQUIRED to consult any faculty member to complete their application.

English Requirement (if applicant's first language is not English): Minimum TOEFL score 550 (paper-based), 213 (computer-based), 86 (internet-based) **or** IELTS score 6.5 **or** Duolingo 120. The test should have been taken within two years of the date a completed application is filed. See [English Language Requirements](#).

Students may be admitted upon successful completion of a pre-Master's program which consists of a set of upper-level undergraduate courses – for details, see