Fontbonne University
MASTER OF SCIENCE IN
COMPUTER SCIENCE

Computer Science is a field with a continuously expanding need for advanced knowledge and expertise. A Master of Science in Computer Science from Fontbonne University will give you the tools needed to succeed and advance in this diverse industry.

According to the Computing Research Association, the need for software engineers, support specialists, system analysts and administrators is higher than it's been in a decade. By 2018, only 29 percent of 1.5 million computer-related jobs will be filled. And computer science salaries have been ranging between $61,000 and $81,000, according to the Bureau of Labor Statistics.

What Makes Fontbonne's Program Unique?

- Two specialty tracks: data mining and cyber security.
- Three study plans: all coursework, a master's thesis or a master's project.
- Learn to design, analyze and implement algorithms in current programming languages.
- Gain knowledge of:
  - computer architecture and operating systems,
  - software engineering and project management,
  - computer networking,
  - discrete structures, data structures and relational database systems.
- Learn how to effectively communicate technological knowledge to technical and non-technical professionals.
- Taught by faculty with industry knowledge.
- Small class sizes and personal attention.
- 34 credit hours; 16-week semesters

Format: evenings or a combination of daytime and evening classes

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ADMISSION REQUIREMENTS

Minimum requirements for admission to the computer science graduate program are a bachelor's degree in computer science or a related discipline and an undergraduate cumulative GPA of 3.0. Students with a cumulative GPA of at least 2.75 will be granted conditional acceptance. Transcripts must show the following coursework, or students must complete the work prior to starting their MS degree:

- Calculus I and II
- Discrete Math
- Computer Architecture or Organization
- Operating Systems
- C and (C++ or Java)
- Data structures and algorithms
- Database management
- Elementary statistics course

Course Listing: see reverse side >>

APPLICANTS MUST SUBMIT:

- A completed application for graduate admission.
- Official transcripts from all prior institutions of higher education.
- Three letters of recommendation including one from a supervisor or recent academic advisor.
- A self-statement essay.
- Entrance examination scores.
  Overall GRE: 290 with Quantitative score of 150 and Verbal score of 140. The GRE test can be waived if any one of the following conditions is satisfied:
  - BS in Computer Science from ABET accredited program
  - BS in Computer Science or related field with a GPA of 3.5/4.0
  - MS in related field
  - 3 years of field experience in IT-related area

International applicants must have a GPA of 3.0/4.0 and submit the following: an international student application, a transcript evaluation by Fontbonne or World Education Services, a language score of 71 TOEFL (IBT)/6.0 IELTS/ 275 Fontbonne Compass exam, a copy of passport and proof of financial support.

APPLICATION DEADLINE

Fall: July 1
Spring: November 1

Admission, graduation requirements and curriculum are subject to change.

APPLICATION AVAILABLE
www.fontbonne.edu/eveonlineapp

FIND OUT MORE
To schedule an appointment or to learn more about our programs, call **314.863.2220** or email **eveonline@fontbonne.edu**.

VISIT US ONLINE AT
www.fontbonne.edu/mscs

Students must successfully complete 34 hours of graduate credit to earn a Master of Science in Computer Science. **All courses are three credit hours unless stated otherwise.**

REQUIRED GRADUATE CORE COURSES (15 credit hours)

Choose four of the following six courses:
- CIS 501 Advanced Algorithms and Data Structures
- CIS 502 Advanced Operating Systems
- CIS 503 Advanced Software Engineering
- CIS 504 Advanced Computer Organization and Architecture
- CIS 505 Advanced Database Systems
- CIS 506 Advanced Computer Networks

Students must also take the Colloquium course
- CIS 510 Colloquium in computer science (1 credit hour)

Total of 13 hours of required course credit.

ELECTIVE GRADUATE COURSES (12-18 credit hours)

Students can select four to six elective graduate courses from within two different tracks:

Cyber Security Track
- CIS 530 Network Security
- CIS 535 Applied Cryptography
- CIS 539 Topics in Cyber Security

Data Mining Track
- CIS 550 Introduction to Data Mining
- CIS 555 Machine Learning
- CIS 559 Topics in Data Mining

General Courses
- CIS 584 Internship in Computer Science (1-3 credits). May be taken for a maximum of 3 credit hours.
- CIS 585 Independent Study in Computer Science
- CIS 594 Special Topics in Computer Science

STUDENTS MUST CHOOSE FROM AMONG THREE CURRICULUM PLANS: A, B OR C

Plan A – (Course Work Only)
- Seven additional 3-credit courses selected from the core or elective courses listed above

Plan B – (Master Project)
- Five additional 3-credit courses selected from the core or elective courses listed above
- Two courses (six credit hours) devoted to a Master Project

Plan C – (Master Thesis)
- Five additional 3-credit courses selected from the core or elective courses listed above
- Two courses (six credit hours) devoted to a Master Thesis