

# MASTER OF SCIENCE IN COMPUTER SCIENCE

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Computer scientists are among the professionals who conceive, design, build and deploy critical software and hardware to support and advance the infrastructure that runs our globally connected world. The 30-credit Master of Science in Computer Science program prepares computer scientists who can contribute to the broad field of computer science. Computer science graduates possess a solid grounding in core knowledge and, through a variety of electives, an understanding of the vast breadth of the discipline, enabling them to solve emerging problems with innovative solutions. The program allows students to pursue either a thesis or non-thesis track.

## Master of Science in Computer Science Program of Study

The 30 credits required for the Master of Science in Computer Science include four core courses (12 credits), elective courses chosen in consultation with an academic adviser and a thesis or non-thesis option. Students must maintain a minimum cumulative GPA of 3.00 to remain in the MS-CS program. A minimum grade of C is required in all graduate courses.

### Curriculum (Thesis Option)

Code	Title	Credits
CSC 510	Computer Architecture	3
CSC 515	Algorithms & Design	3
CSC 520	Operating Systems	3
CSC 530	Embedded Systems	3
CSC 691	MS Thesis I	3
CSC 692	Ms Thesis II	3
Graduate electives		12
<b>Total Credits</b>		<b>30</b>

### Curriculum (Non-Thesis Option)

Code	Title	Credits
CSC 510	Computer Architecture	3
CSC 515	Algorithms & Design	3
CSC 520	Operating Systems	3
CSC 530	Embedded Systems	3
Graduate electives		18
<b>Total Credits</b>		<b>30</b>

### Graduate electives

Code	Title	Credits
CSC 575	Special Topics in Computer Science	1-4
CSC 605	Foundations of Cybersecurity	3
CSC 615	Computational Geometry	3
CSC 625	Database Systems	3
CSC 630	Parallel Processing and Design	3

CSC 640	Computer Networks	3
CSC 645	Computer Graphics	3
CSC 650	Neural Networks	3
CSC 675	Advanced Topics in Computer Science	1-4
CSC 699	Independent Study	1-4

## Student Learning Outcomes

Graduates of the program will have an ability to:

1. **Work** collaboratively on projects of significance, managing a common codebase.
2. **Apply** computer science theory and software development fundamentals to solve significant problems creatively.
3. **Design, develop, deploy and maintain** complex solutions using modern tools and techniques.
4. **Develop** solutions to problems that are mindful of the role of computers in society.
5. **Demonstrate** ethical behavior and explain its importance.

## Admission

To qualify for admission into the MS Computer Science program, a student must have completed a bachelor's degree from a regionally accredited institution and either completed 30 or more semester credit hours in computing or received approval from the program director. Applications may be obtained from the Office of Graduate Admissions and are accepted for fall or spring enrollment. A complete application consists of the following:

1. Application form and fee
2. A letter of intent including an autobiographical account of personal, professional and educational achievements
3. One letter of recommendation
4. Official transcripts of all undergraduate and graduate work completed
5. TOEFL/IELTS scores (if the medium of instruction for the undergraduate degree is not English)

A cumulative undergraduate GPA of 3.00 is preferred. Although Graduate Record Examination (GRE) scores are not required, the scores can provide another indication of a student's academic readiness. Applicants should refer to the Graduate Admission Requirements (<http://catalog.qu.edu/graduate-studies/#admissionstext>) found in this catalog.