COMPUTER SCIENCE - MASTER OF SCIENCE (MS)

The Master of Science degree in computer science permits graduate students the flexibility in defining specialized interdisciplinary fields that meet their professional needs.

Students may complete the degree with or without completing a thesis. The thesis option is well-suited to students pursuing a career in academia or industry with a research component. The curriculum follows the department’s research focus areas:

- Artificial Intelligence
- Robotics
- Computational Biology
- Human-Centered Computing
- Numerical & Scientific Computing
- Programming Languages
- Software Engineering
- Systems & Networking
- Theory of Computing

With support from the research advisor, students in this program have the option of smoothly transitioning in the PhD program. If students receive support from a research advisor, they do not have to apply to the PhD program; the department processes the degree advancement based on the support.

Concurrent Degree Program

BS/MS in Computer Science

The Master of Science degree in computer science is also available to undergraduate computer science majors. All degree requirements must be completed within five years of the date of commencing course work.

For more information, visit the Concurrent BS/MS Program Requirements webpage.

Requirements

Degree Plans

While pursuing the traditional MS degree in CS, students may select between two options.

Plan I: Thesis Option

The MS thesis option curriculum is designed to provide a balance between modern technological focus and disciplinary depth. Students must secure a thesis advisor for research and course guidance.

Under this option, students complete 24 credits of course work and 6 thesis credits at the 5000 level or above. At least 24 credits (eight courses) must be completed in Computer Science, including four required breadth courses. Up to 6 credits (two courses) may be taken outside of the department with the approval of the Graduate Committee.

In addition to this, students fulfill other MS degree requirements as stated by the department.

Plan II: Non-Thesis Option

Under this option, students complete 30 credits of course work at the 5000 level or above. At least 24 credits (eight courses) must be completed in Computer Science, including four required breadth courses. Up to 6 credits must be independent study research hours. Up to 6 credits (two courses) may be taken outside of the department with the approval of the Graduate Committee.

In addition to this, students fulfill other MS degree requirements as stated by the department.

For more information, visit the Traditional MS Degree Program Requirements webpage.

Breadth Courses

Students must complete one course each in four of the nine different breadth areas: artificial intelligence, computational biology, human-centered computing, numerical & scientific computing, programming languages, software engineering, database systems, systems & networking, and theory of computing.

For a list of breadth courses by category, visit the department’s MS/ME Breadth Requirement webpage.

Time Limit

All degree requirements must be completed within four years of the date of commencing course work.