Computer Science, MS

Program Description

Degree Awarded: MS Computer Science

The MS in computer science is a research-oriented degree program targeted toward students with an undergraduate education in the science of computation. It provides instruction in advanced coursework and emphasizes research by the student. Students can conduct cutting-edge research in a wide variety of research areas including:

- artificial intelligence
- bioinformatics
- cloud and distributed computing
- computer design and architecture
- computer graphics
- computer networks
- computer-aided geometric design
- cyber-physical and embedded systems
- data mining and machine learning
- database management and information retrieval
- database systems
- distributed computing and operating systems
- embedded systems
- health operations and informatics
- imaging, graphics and visualization
- information assurance
- information assurance and security
- intelligent information integration
- multimedia
- network algorithms
- personalized learning and educational games
- simulation modeling and systems
- social computing
- software engineering
- statistical modeling
- theory and algorithms
At a Glance

- **College/School:** Ira A. Fulton Schools of Engineering
- **Location:** Tempe campus

Accelerated Degrees

This program allows students to obtain both a bachelor's and master's degree in as little as five years. It is offered as an **accelerated bachelor's and master's degree** with:

- Computer Science, BS
- Computer Science (Cybersecurity), BS
- Computer Science (Software Engineering), BS
- Computer Systems Engineering, BSE
- Computer Systems Engineering (Cybersecurity), BSE

Acceptance to the graduate program requires a separate application. During their junior year, eligible students will be advised by their academic departments to apply.

Degree Requirements

30 credit hours and a thesis

**Required Core Areas (9 credit hours)**

- applications (3)
- foundations (3)
- systems (3)

**Electives (15 or 21 credit hours)**

**Culminating Experience (0 or 6 credit hours)**

CSE 599 Thesis (6) or
portfolio (0)

Additional Curriculum Information

Students should see the academic unit for the list of courses approved for each core area in applications,
foundations and systems. Courses selected as part of the core may not be used as other elective coursework on the same plan of study.

Students complete a thesis or portfolio for the culminating experience. Students in the thesis option take 15 credit hours of electives and students in the portfolio option take 21 credit hours of electives. The project portfolio is developed from three courses in which the student received a "B" (3.00) grade or higher. Students should see the academic unit for additional information and requirements.

For thesis students, nine of the 15 credit hours of electives must be courses in a chosen research area and approved by the student's academic advisor. Up to six credit hours can be independent study in CSE 590 Reading and Conference.

Students will complete a minimum of 30 credit hours for the program. At least 24 of these credit hours must be 500-level CSE courses at ASU. Up to six credit hours of 400-level courses may be applied to the plan of study.

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**Admission Requirements**

Applicants must fulfill the requirements of both the Graduate College and the Ira A. Fulton Schools of Engineering.

Applicants are eligible to apply to the program if they have earned a bachelor's or master's degree in computer science, computer engineering or a closely related area from a regionally accredited institution.

Applicants must have a minimum of a 3.25 cumulative GPA (scale is 4.00 = "A") in the last 60 hours of a student's first bachelor's degree program, or applicants must have a minimum of a 3.25 cumulative GPA (scale is 4.00 = "A") in an applicable master's degree program.

All applicants must submit:

1. graduate admission application and application fee
2. official transcripts
3. scores for the GRE
4. three letters of recommendation
5. a statement of purpose
6. proof of English proficiency

**Additional Application Information**

An applicant whose native language is not English (regardless of current residency) must provide proof of English proficiency.
If the student has graduated with an undergraduate degree in computer science or computer systems engineering at ASU, GRE scores are not required.

If the student is assigned any deficiency coursework upon admission, those classes must be completed with a grade of "B" (scale is 4.00 = "A") or higher within two semesters of admission to the program. Deficiency courses are:

- CSE 230 Computer Organization and Assembly Language Programming
- CSE 310 Data Structures and Algorithms
- CSE 330 Operating Systems
- CSE 340 Principles of Programming Languages
- CSE 355 Introduction to Theoretical Computer Science
- CSE 360 Introduction to Software Engineering

The applicant's undergraduate GPA and depth of preparation in computer science and engineering are the primary factors affecting admission.

Students see the program website for application deadlines.

**Contact Information**

Computer Science and Engineering Program | CTRPT 105
cidse.advising@asu.edu | 480-965-3199
Admission Deadlines