Computer Science, MCS

Program Description

Degree Awarded: MCS Computer Science

The MCS program affords an opportunity for students employed in industry to seek a breadth of advanced education in computer science.

The program reflects the dual nature of computer science as a scientific and engineering discipline by allowing emphasis on theory as well as practical applications. Students can study topics such as:

- artificial intelligence
- big data
- cloud and distributed computing
- cybersecurity
- database management and information retrieval
- database systems
- data mining and machine learning
- distributed computing and operating systems
- imaging, graphics and visualization
- simulation modeling and systems

Students build a project portfolio through the program to demonstrate the knowledge gained.

For questions or more information, students interested in the program through ASU Online should contact mcsonline@asu.edu; students interested in the program at the Tempe campus should contact SCAI.Grad.Admission@asu.edu.
At a Glance

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

Accelerated Program Options

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**
- **Software Engineering, BS**

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

Degree Requirements

30 credit hours and a portfolio

**Required Core Areas (9 credit hours)**
- applications (3)
- foundations (3)
- systems (3)

**Electives (21 credit hours)**

**Culminating Experience (0 credit hours)**
- 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.

Students choose 21 credit hours of elective coursework approved by their academic advisor. Coursework selected as part of the area core may not be used as elective coursework on the same plan of study.

At least 24 of these hours must be CSE 5XX credits at ASU. A maximum of four CSE 598 courses are allowed as elective coursework, which cannot include courses taken at the undergraduate level. Up to six
credit hours of 400-level courses may be applied to the plan of study. All 30 credit hours must be from formal coursework. CSE 590 is not allowed as part of the MCS program plan of study.

All MCS program students must complete a project portfolio from three courses in which the student received a "B" (3.00) grade or higher.

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 cumulative GPA of 3.00 (scale is 4.00 = "A") in the last 60 hours of their first bachelor's degree program, or applicants must have a minimum cumulative GPA of 3.00 (scale is 4.00 = "A") in an applicable master's degree program.

Applicants must submit:

1. graduate admission application and application fee
2. official transcripts
3. GRE scores*
4. statement of purpose or a curriculum vitae
5. proof of English proficiency

*GRE scores are optional but strongly recommended for Tempe campus applicants.

Additional Application Information
An applicant whose native language is not English must provide proof of English proficiency regardless of current residency. Students can find more information on the Admission Services website: https://admission.asu.edu/international/graduate/english-proficiency.

Students assigned any deficiency coursework upon admission must complete those classes with a grade of "B" (scale is 4.00 = "A") or higher within two semesters of admission to the program. Deficiency courses include:

CSE 230 Computer Organization and Assembly Language Programming
CSE 310 Data Structures and Algorithms
CSE 330 Operating Systems
CSE 340 Principles of Programming Languages or CSE 355 Introduction to Theoretical Computer Science
The applicant's undergraduate GPA and depth of preparation in computer science and engineering are the primary factors affecting admission.

**Attend Online**

ASU Online

ASU offers this program in an online format with multiple enrollment sessions throughout the year. Applicants may view the program description and request more information [here](#).

**Application Deadlines**

**Fall**

**Spring**

**Summer**

**Career Opportunities**

Graduates are able to analyze key theories, algorithms and software modules used in the field of computer science.

Career examples include:

- computer network architect
- computer system analyst
- computer systems engineer
- data scientist or engineer
- machine learning, AI or computer vision engineer
- software engineer
- software developer

**Contact Information**

[Computer Science and Engineering Program](#) | CTRPT 105  
mcsonline@asu.edu | 480-965-3199