Computer Science (Biomedical Informatics), MS

Program Description

Degree Awarded: MS Computer Science (Biomedical Informatics)

The MS program in computer science with a concentration in biomedical informatics is designed for graduate students who wish to specialize in such topics as genomics and computational systems biology. The concentration is transdisciplinary in nature, providing preparation that integrates technological expertise in the information sciences, computer science, biosciences and statistics with an understanding of the clinical environment of the health care professional. It will expose computer science students to current issues in clinical practice as well as the use of information systems in health care settings.

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)

**Concentration (9 credit hours)**

- BMI 501 Introduction to Biomedical Informatics (3)
- BMI 540 Problem Solving in Biomedical Informatics (3)
- BMI 5XX approved elective in biomedical informatics (3)

**Electives or Research (6 credit hours)**

**Culminating Experience (6 credit hours)**

- CSE 599 Thesis (6)

**Additional Curriculum Information**

Students will focus their research in one of the following areas: bioinformatics, biomedical informatics, clinical informatics, imaging informatics or public health informatics.

Courses that are used to satisfy the concentration requirement on the plan of study cannot be used to satisfy the core requirement. Additionally, courses selected as part of the core or concentration may not be used as other elective coursework on the same plan of study. Students will complete a minimum of 30 credit hours for the program. At least 21 of these credit hours must be 500-level CSE courses at ASU.

**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.
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. GRE scores
4. statement of purpose
5. three letters of recommendation
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 via a TOEFL score.

The student must submit verbal, quantitative and analytical GRE scores (optional: subject test in computer science), unless the student has graduated with an undergraduate degree in computer science or computer systems engineering from ASU.

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 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 should 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