Computer Science (Art, Media and Engineering), PhD

ESAMECSPHD

Program Description

Degree Awarded: PHD Computer Science (Arts, Media and Engineering)

The PhD program in computer science with a concentration in arts, media and engineering emphasizes research on the integration of the human physical experience with computation and digital media. Arts, media and engineering researchers produce experiential media systems and models that:

- assist the disadvantaged
- empower creativity
- enhance scientific discovery
- evolve human ability
- facilitate learning
- improve quality of life

Within these application areas, researchers explore experiential construction, interaction and feedback, knowledge creation, sensing, perception and modeling.

The purpose of the arts, media and engineering concentration is to train hybrid engineering-arts graduates who get their inspiration from the arts and their methodology from computer science and engineering. Students will specialize in transdisciplinary media development. More information about arts, media and engineering can be found at https://artsmediaengineering.asu.edu/.

At a Glance

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

84 credit hours, a written comprehensive exam, an oral comprehensive exam, a prospectus and a dissertation

Required Core Areas (15 credit hours)
architecture and networked systems (3)
technological and interactive systems (3)
data and information systems (3)
software and information assurance (3)
foundations of computation and algorithms (3)

Depth (6 credit hours)
six additional credit hours in one core area (6)

Concentration (18 credit hours)

Electives (15 credit hours)

Research (18 credit hours)

Culminating Experience (12 credit hours)
CSE 799 Dissertation (12)

Additional Curriculum Information
Students should see the academic unit for the list of courses approved for each core area. Courses that are used to satisfy the core area requirement cannot be used to satisfy the concentration requirement or other requirements.

Students choose courses for the arts, media and engineering concentration in consultation with their graduate advisor. Up to 18 credit hours of CSE 590 and CSE 790 are allowed on the plan of study. Additional restrictions may apply to electives course selection.

When approved by the academic unit and the Graduate College, 30 credit hours from a previously awarded master's degree are allowed to be used for this degree.

A maximum of six credit hours of 400-level coursework may be applied to the plan of study.

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 degree in computer science, computer engineering or a closely related area. Most applicants should have earned a master's degree, but exceptional undergraduate applicants may be admitted directly into the doctoral program.

Applicants must have a minimum of a 3.50 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 3.50 cumulative GPA (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 from every university attended
3. scores for the GRE
4. three letters of recommendation
5. a statement of purpose
6. curriculum vitae or resume
7. 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: [https://students.asu.edu/graduate/proficiency](https://students.asu.edu/graduate/proficiency).

If the student has graduated with an undergraduate degree in computer science or computer systems engineering from ASU, GRE scores are not required.

The statement of purpose must fulfill any requirements defined by the Graduate College and also address the transdisciplinary nature of the arts, media and engineering program. Applicants should explain in a concise and persuasive manner how their educational, professional and personal experiences inform their research and creative interests, writing on any aspect of their background that supports candidacy to the program. Further information on how this statement can be expanded upon by students interested in a research assistantship or an Integrative Graduate Education and Research Traineeship within arts, media and engineering is available from the department. Students should submit a current curriculum vitae with the statement of purpose.

If the student is assigned any deficiency coursework upon admission, those classes must be completed with a grade of "B" (3.00 on a 4.00 scale) 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.

Applications deadlines are posted on the program website.

Contact Information

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