

# MASTERS OF SCIENCE IN COMPUTER SCIENCE

Fall 2001

The M.S. in Computer Science degree program in the Department of Computer Science at Georgia State University provides students with advanced training in the fundamental principles and processes of computation. The department focuses on the technical aspects of both software and hardware. The computer science faculty are actively engaged in a wide variety of research endeavors. Research efforts are concentrated in artificial intelligence and neural nets, bioinformatics, computer architecture, database, graphics and visualization, networks, parallel and distributed computing, programming languages, simulation, and software engineering. Graduate laboratory, research and teaching assistantships are available to graduate students.

The Department of Computer Science accepts applications for each semester and the general deadlines apply. Applicants for graduate assistantships must apply by Feb 15 for fall semesters.

Hard-copies of the forms for Supplemental Application for Computer Science, letters of recommendations, and financial aid may be obtained from the department, or down-loaded from the department's web site at [www.cs.gsu.edu](http://www.cs.gsu.edu) by following the link to "Graduate Program in Computer Science."

## 1 ADDITIONAL ADMISSION REQUIREMENTS.

In addition to the general requirements of the College of Arts and Sciences which includes the Graduate Records Examination (GRE-General), the Department of Computer Science has the following requirements:

1. A baccalaureate degree in computer science, or its equivalent. While we welcome capable students with non-computer-science degrees, they may need some foundation courses.
2. A Supplemental Application for Computer Science.
3. A statement of background and goals.
4. Three letters of recommendations from individuals who can evaluate the applicant's potential for graduate work in computer science.
5. GRE General Examination.

## 2 DEGREE REQUIREMENTS

### 1. Foundation Coursework

If any of the following foundation courses in Computer Science or Mathematics has not been taken in another program, these must be completed at the earliest. 4000-level foundation courses must be taken as their 6000-level counterparts by graduate students.

- (a) Foundation coursework in computer science with a grade of at least a “B” in each.
  - i. Data Structures (CSc 3410)
  - ii. Computer Architecture (CSc 4210)
  - iii. Operating Systems (CSc 4320)
  - iv. Programming Languages (CSc 4330)
  - v. Software Engineering (CSc 4350)
  - vi. Automata (CSc 4510)
  - vii. Design and Analysis of Algorithms (CSc 4520)
- (b) Foundation coursework in mathematics that includes a standard elementary calculus sequence and Discrete Mathematical Foundations for Computer Science (CSc 2510), with at least a “B” in each.

### 2. CSc 8900: Seminar in Computer Science (1 hour)

Must be taken in the first semester as a graduate student.

### 3. Graduate Coursework (24 hours)

in the Department of Computer Science, selected in consultation with an academic advisor, and approved by the Director of Graduate Studies, with a grade of at least a “B” in each course.

- (a) Sixteen hours of computer science courses at the 8000-level, exclusive of Research, Thesis Research and Independent Study courses.
- (b) An additional eight hours of graduate-level coursework in computer science at the 6000-level or above exclusive of Foundation, Research, Thesis Research and Independent Study courses.

### 4. Thesis/Project (6-8 hours)

- (a) **Thesis Option:** Six hours of Thesis Research (CSc 8999).

A thesis committee must be setup no later than two semesters after completing any foundation courses. This work should culminate in the writing of a thesis. The thesis must be defended successfully in a oral examination. This examination will pertain to, but is not limited to, the subject matter of the thesis.

- (b) **Project Option:** Four hours of CSc 8930 in which the student completes a project and an additional four hours of graduate-level coursework in computer science at the 6000-level or above exclusive of Foundation, Research, Thesis Research and Independent Study courses. The project must be supervised by a CS graduate faculty advisor. The student must write a report on the project, and pass an oral final examination given by an ad hoc faculty committee headed by the project advisor. This examination will pertain to, but is not limited to, the subject matter of the project.