

**REVISED (August 7, 2018)**

**MASTER OF SCIENCE IN COMPUTER SCIENCE** (NON-THESIS Option)

**Overview of Degree**

The Master of Science degree in Computer Science (non-thesis option) at The University of Georgia is a comprehensive program of study intended to give qualified and motivated students a thorough foundation in the theory, methodology, and techniques of Computer Science. Students who successfully complete this program of study will have a grasp of the principles and foundations of Computer Science. This degree program is designed for graduate students seeking careers in industry or government after graduation. The students will obtain skills and experience in up-to-date approaches to analysis, design, implementation, validation, and documentation of computer software and hardware. With these skills they will be well qualified for technical, professional, or managerial positions in government, business, industry, and education.

Prospective students are advised to consult The University of Georgia Graduate Bulletin for institutional information and requirements.

**Admission Requirements**

In addition to the general University of Georgia policies set forth in the Graduate Bulletin, the following departmental policies apply to all applicants:

1. A bachelor degree is required, preferably with a major in Computer Science or an allied discipline. Students with insufficient background in Computer Science must take undergraduate Computer Science courses to remedy any deficiencies (in addition to their graduate program). A sufficient background in Computer Science must include at least the following courses (or equivalent):

|                 |   |
|-----------------|---|
| MATH 2200;      | Analytic Geometry and Calculus            |
| MATH 2410;      | Integral Calculus with Theory             |
| CSCI 1301;      | Introduction to Computing and Programming |
| CSCI 1302;      | Software Development                      |
| CSCI 1730;      | Systems Programming                       |
| CSCI/MATH 2610; | Discrete Mathematics for Computer Science |
| CSCI 2670;      | Introduction to Theory of Computing       |
| CSCI 2720;      | Data Structures                           |

2. Admission to this program is selective; students with a record of academic excellence have a better chance of acceptance. Students with exceptionally strong undergraduate records may apply for admission to the graduate program prior to fulfilling all of the above requirements.

3. Graduate Record Examination (GRE) test scores are required for admission consideration.
4. Three letters of recommendation are required, preferably written by university professors familiar with the student's academic work and potential. If the student has work experience, one letter may be from his/her supervisor. Letters should be sent directly from the letter writer.
5. A one or two page personal statement outlining the student's background, achievements, and future goals is required.
6. A student may include a recent copy of her resume as part of the application packet; however, this is not required.

### **Graduate School Requirements**

Additional requirements are specified by the Graduate School (application fee, general application forms, all transcripts, etc.). Please see the University of Georgia Bulletin for further information. Detailed admissions information may be found at Graduate School Admissions. Printed information may be obtained by contacting the

University of Georgia Graduate School  
Terrell Hall  
210 S. Jackson St.  
Athens, GA 30602

phone: 706-542-1739  
fax: 706-542-6330  
e-mail: gradadm@uga.edu

Applications are processed on a year round basis. Students can be admitted for either semester (Fall or Spring). Please visit the Graduate School for application submission deadlines.

### **Summary of Basic Degree Requirements**

#### **Primary Focus**

The primary focus consists of at least 32 semester hours of resident graduate course work. This includes:

1. at least 12 hours of core CSCI graduate level course work (see "Core Curriculum" below);

2. at least **16 credit hours** of Additional CSCI graduate level (6000/8000-level coursework), with 12 hours of graduate student only coursework, as per Graduate School policy; see additional coursework below;
3. at least **4 credit hours** of Project coursework (CSCI7200) or an additional four credit hours of CSCI coursework at the 6000/8000-level.

Typically, full-time students will take 9 to 15 hours per semester. See the CSCI section of the University of Georgia Bulletin for course descriptions. A program of study should be a coherent and logical whole; it requires the approval of the departmental graduate coordinator. Note: no course with a grade of C+ or lower may be included on the student's Program of Study (see the Graduate Bulletin for other GPA constraints).

### **Core Curriculum (Primary Focus Item #1)**

At least one course from each of the following three groups must be taken:

Group 1: Theory

CSCI 6470 Algorithms  
CSCI 6480 Approximation Algorithms  
CSCI 6610 Automata and Formal Languages

Group 2: Software Design

CSCI 6050 Software Engineering  
CSCI 6370 Database Management  
CSCI 6570 Compilers

Group 3: System Design

CSCI 6720 Computer Architecture and Organization  
CSCI 6730 Operating Systems  
CSCI 6760 Computer Networks: Technology and Application  
CSCI 6780 Distributed Computing Systems

The core curriculum consists of a total of **12 semester hours**. Core competency is certified by the Graduate Coordinator. Students are expected to meet the core competency requirement by the end of their second enrolled academic semester. Note: a course used to fulfill part of the core requirement (Item #1) may not be used to also fulfill part of the additional coursework requirement (Item #2). A student may fulfill their core requirement (12 core hours) and then take another (different) graduate student only course from the core list to count toward their additional coursework requirement. In no case shall a course used to fulfill part of the core course requirement count toward the core requirement AND the additional coursework requirement.

### **Additional Course Work (Primary Focus Item #2)**

Students must take at least **16 semester hours** of additional graduate-level coursework, with at least **12 semester hours at the 8000-level** (thus fulfilling the Graduate School requirement of at least 12 hours of graduate only coursework). In no case shall a 6000-level course used to fulfill part of the additional coursework requirement count toward the additional coursework requirement AND the core curriculum requirement.

### **Masters Project and Report and a Written Exam (Primary Focus Item #3)**

To satisfy this requirement, four hours of CSCI 7200 Masters Project must be taken, typically spread over the student's final two semesters. The CSCI 7200 course involves an applied research project under the direction of a Computer Science Graduate faculty member. As part of the requirements, a comprehensive report must be prepared detailing the student's procedures and findings regarding the completed project work. Optionally, if the student prefers, four additional hours of CSCI coursework at the 6000/8000 level (excluding CSCI 6950 and CSCI 8990) may substitute for CSCI 7200. A student selecting this (non-project) option is required to also pass a written exam administered by members of the Graduate Faculty.

### **Non-Departmental Requirements**

Non-departmental requirements are set forth by the Graduate School (see the Graduate Bulletin). They concern residence, time limits, programs of study, acceptance of transfer credits, minimum GPAs, thesis, and final examination.

### **Graduation Requirements**

A student admitted to the M.S. degree program will be advised by the graduate coordinator. Before the end of the second semester in residence, a student must submit to the Graduate School, through the graduate coordinator, the following forms: (i) a Program of Study Form and (ii) an Advisory Committee Form (currently under preparation for the non-thesis option). The Program of Study Form indicates how and when degree requirements will be met. An Application for Graduation Form must also be submitted directly to the Graduate School.