

Master's of Science in Computer Science
NON-THESIS Option
Revised January 29, 2020

Overview of Degree

The Master's 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's 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 their equivalent):

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|----------------|---|
| MATH 2250 | Calculus I (Differential Calculus) |
| MATH 2260 | Calculus II (Integral Calculus) |
| 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. International applicants also need TOEFL or IELTS official test scores.
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 his/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 3 0602

phone: 706-542-1739
fax: 706-425-3094
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.

Curriculum

The curriculum consists of at least **32 credit hours** of resident graduate coursework. This includes the following three items:

1. at least **12 credit hours** of Core CSCI graduate coursework at the 6000-level (see “Core Curriculum” below);
2. at least **16 credit hours** of Advanced CSCI graduate coursework at the 6000/8000-level (see “Advanced Coursework” below); the above (items 1 & 2) must include 12 credit hours of coursework open only to graduate students, exclusive of 6950 and 8990, as per Graduate School policy;
3. at least **4 credit hours** of Project coursework (CSCI 7200).

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 student’s Major Professor/Project Advisor (see below) and 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 (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 System

The core curriculum consists of a total of **12 credit hours**.

Core Competency

Foundational computer science knowledge (core competency) in the core areas (Groups 1, 2, and 3, above) must be exhibited by each student and certified by the department. This takes the form of achievement in core curriculum. A grade average of at least 3.30 (e.g., B+, B+, B+) must be achieved for the three core courses. Students below this average may take an additional core course and achieve a grade average of at least 3.15 (e.g., B+, B+, B, B).

Core competency is certified by the student's Major Professor/Project Advisor (see below) with the approval of the Graduate Coordinator. The student's Major Professor/Project Advisor manages the core competency in cooperation with the student. Students are expected to meet the core competency requirement within their first two enrolled academic semesters (excluding summer semester). **Core Competency Certification must be completed before approval of the Program of Study.**

Note: a course used to fulfill part of the core requirement (Item #1) may not be used to also fulfill part of the advanced 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 advanced coursework requirement. In no case shall a course used to fulfill part of the core course requirement count toward the core requirement AND the advanced coursework requirement.

Advanced Coursework (Item #2)

Students must take at least **16 credit hours** of advanced CSCI graduate-level coursework. This includes at least **12 credit 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 advanced coursework requirement count toward the advanced coursework requirement AND the core curriculum requirement.

Master's Project and Report (Item #3)

To satisfy this requirement, **4 credit hours** of CSCI 7200 Master's 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 the student's Major Professor/Project Advisor (see below). As part of the requirements, a **comprehensive report** must be prepared detailing the student's procedures and findings regarding the completed project work.

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

Before the end of the second semester in residence, a student must begin submitting forms to the Graduate School, through the Graduate Coordinator, including a Program of Study Form. The Major Professor/Project Advisor must come from the Computer Science Faculty (Professors/Lecturers). The Program of Study Form indicates how and when degree requirements will be met and must be formulated in consultation with the student's Major Professor/Project Advisor. An Application for Graduation Form must also be submitted directly to the Graduate School.

Forms and Timing must be submitted as follows:

1. Core Competency Form (Departmental) - beginning of third semester
2. Program of Study Form (G138) - semester before the student's last semester
3. Application for Graduation Form - beginning of last semester

See "Important Dates and Deadlines" on the Graduate School's website.