

Computer Science, MS

~~Candidates for the M.S. degree in Computer Science must complete 30 hours of course work, subject to the Graduate School regulations. Of these, at least 18 hours must be numbered 5000 or above, with at least one course numbered 6000 or above, chosen with the prior approval of the Graduate Director. All courses numbered below 5000 must be completed with grades of at least B-. Outside computer science, up to 6 hours of related course work is allowed upon permission of the Graduate Director.~~

Degree Requirements

Students choose one of the following options.

1. Traditional Computer Science option
2. Certificate option

Students must complete the following common requirements and additional specific requirements specific to the chosen option.

Candidates for the M.S. degree in Computer Science must complete 30 credit hours of course work in CMP SCI, subject to the Graduate School regulations. Up to 6 hours can be completed outside CMP SCI in a related field, based on student's interests, with permission of the Graduate Director. Up to 9 graduate credit hours can be transferred into the program.

At least 18 credit hours must be numbered 5000 or above, and at least 3 credit hours must be at the 6000-level (research courses or thesis). All courses numbered below 5000 must be completed with a grade of at least B-.

~~Students~~ All students ~~must satisfy all of~~ complete the following core requirements: courses

CMP SCI 4250	Programming Languages	3
CMP SCI 5700	Computer Systems	3
CMP SCI 5130	Advanced Data Structures and Algorithms	3
CMP SCI 5500	Software Engineering	3
Total Hours		15 9

~~Waiving or substituting for a specific requirement can be done on the basis of prior course work or experience at the discretion of the Graduate Director, but it will not reduce the total hours required for the degree.~~

Students having prior similar courses may apply for a waiver if the course was passed at the undergraduate level (students will replace the core course with another) or credit if the course was passed at the graduate level. Students may also request a waiver based on demonstrated similar experience or a combination of courses and experience.

Additionally, students must attend at least five different seminars or colloquium presentations in the department.

Thesis Option

Students may choose to write an M.S. thesis under the direction of a faculty member in the Department of Mathematics and Computer Science (CMP SCI 6900). ~~A thesis is not, however, required for this degree. A student who wishes to write a thesis should enroll in 6 hours of CMP SCI 6900, Thesis.~~ A student writing an M.S. thesis must defend **their** **the** thesis in an oral exam administered by a committee of three department members which includes the thesis director.

~~Additionally, students must attend at least five different seminars or colloquium presentations in the department prior to applying for graduation.~~

Traditional Computer Science Option

This option allows students to complete a traditional computer science graduate program. In addition to the common core requirements, students must also complete the following courses as part of the minimum 30 hours:

CMP SCI 4760	Operating Systems	3
CMP SCI 5700	Computer Systems	3

Certificate Option

This option is for students interested in a very specific area of study as indicated by a certificate. In addition to the common core requirements, students must complete any of the graduate certificates in the department as part of the minimum 30 hours.

For a list of current certificates visit the Mathematics and Department page in the University Bulletin.

For further information about our Graduate Degrees in Mathematics and Computer Science, financial aid, and the regulations of the Graduate School, see our page on advanced degrees.

Sign-offs from other departments affected by this proposal

None

Rationale We are modifying the program to introduce multiple options. One option equals the current program, another option will focus on completing a graduate certificate in addition to common requirements, and another will focus on working professionals. We currently have one graduate certificate (cybersecurity) and we are submitting two more (artificial intelligence, mobile apps) and will plan data science in a near future.