Graduate Certificate Policy

Applies to the Graduate Certificates in the Department of Computer Science. Joint certificates may have additional policies.

The certificate program requires:

1. Admission into the certificate program.
2. Courses to take to complete the certificate.
3. A request for the certificate to be awarded.

Notes:

- Each certificate has some prerequisite background. This can be satisfied by having a related background or taking the designated courses. Most departmental graduate students will have the necessary background.
- Courses for the certificates cannot be taken for Satisfactory grade

Admission into the Certificate Program

1. A current graduate student at UMSL (degree or non-degree seeking, from any department or program) must apply for admission into the specific certificate program and be accepted before the actual certificate award can be completed.
   You do NOT need to pay the application fee since you are already a graduate student. You also do NOT need to submit any documents since they are on file unless some need to be updated. Your application is on a fast track.
2. A current non-student must be eligible for graduate status (with a minimum bachelor's degree) and apply for admission into the specific certificate program and be accepted before the actual certificate award can be completed, see this page for more information. These applicants can complete the certificate, or transfer to a degree program before or after completing the certificate with the courses transferable to the degree as long as.
3. An applicant for the certificate program must have a GPA of at least 3.0 for admission.
4. An applicant without a computer science background/experience should contact the listed Certificate Coordinator for the specific certificate to discuss the feasibility of taking some of the core courses. Applicants must have the following courses, take them as prerequisites, have related background or experience, or have graduate standing in Computer Science or Cybersecurity:

   Artificial Intelligence
   At least basic calculus and introduction probability/statistics such as Math 1100 or 1800, 1320
   Data structures and computer algorithms such as Cmp Sci 2250, 3130

   Cybersecurity (Computer Science version)
   At least basic calculus and introduction probability/statistics such as Math 1100 or 1800, 1320
   Data structures and familiarity with command line processing in OS such as Linux, with scripting and tools, such as Cmp Sci 2250, 2750

Data Science

At least basic calculus and introduction probability/statistics such as Math [1100](#) or [1800](#), [1320](#)

Introductory programming such as Cmp Sci [1250](#)

Note that having computer algorithms, such as Cmp Sci [3130](#), makes the sequences easier to take and opens more electives.

Internet and Web

Java programming, familiarity with data structures, and basic web programming with some JS, such as Cmp Sci [2250](#), [2261](#), [3010](#)

Mobile Apps and Computing

Familiarity with data structures, Java, and basic cybersecurity or networking concepts, such as Cmp Sci [2250](#), [2261](#), [3702](#)/[5702](#) or [4730](#)

Additional areas/courses may be needed depending on specifically chosen electives.

Courses in the Certificate Program

1. Required (core) courses for the certificate passed within the preceding three years prior to completing the certificate are automatically approved for the certificate. Electives, course substitutions, and older courses must be approved by the [Certificate Coordinator](#) who will pass this to the Graduate Director.
2. The same course can be used to satisfy a degree program and any number of certificates.
3. Only courses taken for graduate credit can be used. A course taken as an undergraduate can waive a requirement (must be substituted with another).

Certificate Award

1. Certificates are awarded using the same mechanism as degrees. The student will need to apply for the award of the certificate during the last semester in which the student is expected to complete the requirements for the certificate. This is done electronically through the Graduate School (M4 form).
2. Certificates are governed by the same rules as graduate degrees – at the time of the award the GPA of courses in the certificate, and the overall GPA must be at least 3.0.
3. When awarded, the student will have the certificate added to their transcript and may request a printed certificate from the Certificate Coordinator.
4. The certificate can be earned at the same time as another graduate degree or separately. Anyone using the certificate as part of their program (a certificate option) will need to apply for the certificate prior to or at the same time as applying for the actual degree – otherwise, the certificate option cannot be used.

Certificate Coordinators

Certificate Coordinators for each certificate are listed on the [certificate web pages](#). Any changes in the requirements must be approved by the Certificate Coordinator.