Program Description

The online Master of Computer Science (MCS), a graduate degree designed for professionals, consists of eight advanced courses in computing. Choose four core areas from which you'll build expertise such as machine learning, data mining, software engineering, scientific computing, parallel programming, computer systems, and more.

Admission Requirements

Applicants should hold a bachelor’s degree in computer science, or if not, must have coursework (or commensurate experience) in object-oriented programming, data structures, algorithms, linear algebra and probability/statistics. The recommended undergraduate GPA for applicants applying to the Professional Master's program is a 3.2/4.0 or higher. The Department of Computer Science does not require GRE scores for any of its graduate programs. Applications for the MCS do not require letters of recommendation, but they will be considered if included, especially if used to justify experience in lieu of required coursework, or other irregularities.

- Applicants must have been awarded (or are about to be awarded) a 4-year bachelor’s degree equivalent to that granted by the University of Illinois to be eligible for the graduate programs at the University of Illinois Urbana-Champaign. Applicants whose undergraduate degree is a three-year program may not be eligible for graduate level admissions consideration at the University of Illinois. Eligibility depends on the country where the applicant received their degree -- please see the Graduate College's list of eligible degrees.
- The University of Illinois Urbana-Champaign requires applicants to hold at least a 3.0/4.0 or higher GPA in their undergraduate degree to be eligible for graduate studies on this campus.
- Applicants who already hold a master's degree in computer science or computer engineering whose degree requirements are equivalent to a CS @ ILLINOIS master's degree are not eligible to apply for our MS or Professional Master of Computer Science (MCS) degree.
- Starting with applicants seeking entry in Spring 2017, and going forward, CS @ ILLINOIS will not require submission of official transcripts during the initial applications review process. Applicants will be required to submit official credentials (transcripts, academic records, diplomas, certificates of degrees, etc.) only if they are recommended for admission to the Graduate College at the University of Illinois at Urbana-Champaign. Applicants recommended for admission will be required to submit their official transcripts directly to the Graduate College.
- The statement of purpose is part of the online application form. This statement should include your goals and background as it relates to the field of computer science. It is good to include any past work history, your interests, and reasons for pursuing a graduate degree in computer science. Your statement will be evaluated for your conciseness, reasons for pursuing a graduate degree, leadership skills, and eloquence. Applicants to our M.S. or Ph.D. program will also be evaluated according to their scientific research interests. Generally the statement of purpose is between one to two pages.
Each online MCS course is four credit hours.

Breadth Requirements - must complete four courses (16 credit hours) each from a different area, from the following core areas with a grade of B- or higher.

- Parallel Computing
- Artificial Intelligence
- Database and Information Systems
- Programming Languages & Software Engineering
- Graphics/HCI
- Systems and Networking
- Scientific Computing

Advanced Coursework - must complete three courses (12 credit hours)

- CS 513 - Theory and Practice of Data Cleaning
- CS 598/IS 531 - Foundations of Data Curation
- CS 598/STAT 542 - Practical Statistical Learning
- CS 598 / STAT 578 - Advanced Bayesian Modeling
- CD 598 - Cloud Computing Capstone

Electives

- STAT 420 - Methods of Applied Statistics

Additional Requirements

- All coursework must be taken through the Coursera MOOC platform.
- Breadth coursework must have a letter grade of B- or higher. Any other course taken for a letter grade must have a grade of C or higher.
- Up to 12 credit hours of previous graduate coursework that is approved by the Department of Computer Science (including non-degree graduate courses completed within the Department of Computer Science) may be transferred and applied to the Professional MCS degree requirements.