

MASTER



ILLINOIS
COMPUTER SCIENCE
MASTER OF SCIENCE

ONLINE

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WEBSITE:

<https://cs.illinois.edu/academics/graduate/professional-mcs/online-master-computer-science>

Earn your Master's degree from our top-ranked Department of Computer Science without leaving home. Lectures captured as they are presented in class are made available online for your convenience. Up to 12 credit hours taken prior to admission will count toward the degree with departmental approval.

TARGET AUDIENCE:

Computer scientists, software engineers, and computer technicians with appropriate background in computer science.

ADMISSION REQUIREMENTS:

Applicants should hold a 4-year bachelor's degree (or equivalent). Students with a bachelor's degree in a field other than CS are encouraged to apply, but they must have prerequisite coursework or commensurate experience in object-oriented programming, data structures, algorithms, linear algebra, and statistics/probability. Applicants without this can strengthen their application for admission by passing the optional Data Structures Proficiency Exam. 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.

TEXTBOOK PURCHASE:

<https://bookstore.illinois.edu/>

REGISTRATION PROCEDURE:

<https://grainger.illinois.edu/academics/online/registration>

ACADEMIC CALENDAR:

<https://grainger.illinois.edu/academics/online/calendar>

DELIVERY MODE: Online

- Windows OS, Mac, or Linux systems are options when taking I2CS courses.
- Web browser (Chrome, Edge, Firefox)
- Lecture Media is distributed as Flash video and MP3 files. The Flash player is required to view lecture content.

Recommended Equipment:

- Scanner
- Internet Connection (broadband is highly recommended)
- "Fast" (any PC 4 years old or newer) computer, speakers, and sound card

REQUIRED COURSES:

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

Artificial Intelligence:
CS 441 Applied Machine Learning
CS 445 Computational Photography
CS 447 Natural Language Processing
CS 598 Deep Learning for Healthcare

Database and Information Systems:
CS 410 Text Information Systems
CS 411 Database Systems
CS 412 Introduction to Data Mining

Graphics/HCI:
CS 418 Interactive Computer Graphics
CS 445 Computational Photography
CS 416 Data Visualization
CS 519 Scientific Visualization

Parallel Computing:
CS 484 Parallel Programming

Programming Languages & Software Engineering:

CS 421 Programming Languages and Compilers
CS 427 Software Engineering I

Scientific Computing:
CS 450 Numerical Analysis

Security and Privacy:
CS 463 Computer Security II

Systems and Networking:
CS 425 Distributed Systems (Cloud Computing Concepts)
CS 435 Cloud Networking
CS 437 Internet of Things
CS 498 Cloud Computing Applications

Advanced Coursework - Must complete three courses (12 credit hours).

CS 513 Theory and Practice of Data Cleaning
CS 519 Scientific Visualization
CS 598 Foundations of Data Curation
CS 598 Practical Statistical Learning*
CS 598 Advanced Bayesian Modeling
CS 598 Deep Learning for Healthcare
CS 598 Cloud Computing Capstone*
CS 598 Data Mining Capstone*
* Prerequisites apply. Please see printable Online MCS Degree Requirements document.

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 letter grade must have a grade of C or higher.

Courses and tuition are subject to change.

TRANSFER HOURS POLICY:

Twelve hours of credit may be petitioned to transfer after the student is admitted to the degree program and has completed eight hours of study from the University of Illinois.

TOTAL HOURS NEEDED:

32 hours of course work and no thesis.

PAYMENT INFORMATION:

American Express, MasterCard, Visa, Discover are accepted for tuition and fees.

COST:

Online Computer Science MCS – Resident - \$620 per credit hour.
Online Computer Science MCS – Nonresident/International - \$754 per credit hour.