COMPUTER SCIENCE, MS

for the degree of Master of Science in Computer Science

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director of graduate studies: Brian P Bailey (bpbailey@illinois.edu)
overview of admissions & requirements: https://cs.illinois.edu/admissions/graduate/applications-process-requirements/overview-of-grad-college-admissions-requirements
https://grad.illinois.edu/admissions/apply
department website: https://cs.illinois.edu/ (https://cs.illinois.edu)
program website: https://cs.illinois.edu/academics/graduate/ms-program
department faculty: https://cs.illinois.edu/people/faculty/department-faculty
college website: https://grainger.illinois.edu/
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Information listed in this catalog is current as of 06/2020

grad.illinois.edu/admissions/instructions/04c) are set by the Graduate
College.

Financial Aid
Fellowships, research assistantships, and teaching assistantships
(all of which include tuition and partial fee waivers) are awarded on a
competitive basis. All applicants, regardless of US citizenship, whose
native language is not English and who wish to be considered for
teaching assistantships (one of the most common forms of financial
aid for new graduate students in the department) must demonstrate
spoken English language proficiency (http://grad.illinois.edu/admissions/taengprof.htm) by achieving a minimum score of 24 on the speaking
subsection of the TOEFL iBT or 8 on the speaking subsection of the
IELTS (academic exam). Students who are unable to take the iBT or IELTS
are required to receive a minimum score of 5 on the EPI test (http://
cte.illinois.edu/testing/oral_eng/epi_overview.html), offered on campus.
All new teaching assistants are required to participate in the Graduate
Academy for College Teaching (https://citl.illinois.edu/citl-101/teaching-
learning/grad-academy-for-college-teaching) conducted prior to the start
of the semester.

Department Research
Illinois has been an international leader in computing research for
almost five decades. Broadly organized around 11 research areas (http://
cs.illinois.edu/research), 80 faculty members (http://cs.illinois.edu/
people/faculty) conduct research with over 450 graduate students,
and about 30 research staff members. They regularly collaborate with
researchers across campus, in other departments or research units.
The home of the Department of Computer Science at Illinois is the
Thomas M. Siebel Center for Computer Science (http://cs.illinois.edu/
about-us), a state-of-the-art building that opened its doors in 2004. On
the north side of campus, home to The Grainger College of Engineering
(https://grainger.illinois.edu), Siebel Center is an interactive computing
environment, made possible by a gift from alumnus Tom Siebel. The vision
for the building was not only to create a magnificent space to work in, but
to offer opportunities to investigate and apply computing tools on the
building itself. Advanced wireless and wired communication networks,
sensors, actuators, video capture and display equipment, video walls and
information panels and storage and computing capabilities within the
building allow researchers to examine communication and computation
issues related to pervasive computing, multimedia infrastructure, building
intelligence, security and privacy, and art.

Other Graduate Programs in the Department of
Computer Science

degrees:

Admission Requirements
Applicants must hold a bachelor’s degree equivalent to that granted
by the University of Illinois at Urbana-Champaign. The recommended
background for students entering a Computer Science graduate
degree program is a bachelor’s degree in computer science or
computer engineering. The Graduate Record Examination (GRE) (http://
www.ets.org) general aptitude tests (Verbal, Quantitative, and Analytical)
are no longer required. However, in some cases, GRE general scores may
provide helpful supporting information.

Applicants to the computer science MS program must have a minimum
grade point average (GPA) of 3.20 (A = 4.00) in their undergraduate
studies (international GPAs are systematically converted) to be
considered. The department reserves the right to admit applicants with
lower GPAs under rare and exceptional circumstances. If an applicant
also holds a graduate degree, the minimum GPA for that degree must
be 3.00. Full details of the programs offered by Computer Science,
admissibility, application procedures, and deadlines can be found at
the department’s Prospective Graduate Student Information Web site
(http://cs.illinois.edu/admissions/graduate). To apply, click here (http://
www.grad.uic.edu/admissions/apply).

All applicants whose native language is not English are required to
submit TOEFL (http://www.toefl.org) or International English Language
Testing System (IELTS) (http://www.ielts.org) scores as evidence
of English proficiency. Minimum admission requirements (https://
Computer Science, MS (http://catalog.illinois.edu/graduate/engineering/computer-science-mcs)

optional concentrations:
  Computational Science and Engineering (http://catalog.illinois.edu/graduate/engineering/concentration/computational-science-engineering)

Computer Science, PhD (http://catalog.illinois.edu/graduate/engineering/computer-science-phd)

optional concentrations:
  Computational Science and Engineering (http://catalog.illinois.edu/graduate/engineering/concentration/computational-science-engineering)

Bioinformatics: Computer Science, MS (http://catalog.illinois.edu/graduate/engineering/concentration/computer-science/bioinformatics)

joint programs:
  Computer Science, MCS & Architecture, MArch (http://catalog.illinois.edu/graduate/engineering_faa/joint-degree/computer-science-mcs-architecture-march)
  Computer Science, MCS & Law, JD (http://catalog.illinois.edu/graduate/engineering_law/joint-degree/computer-science-mcs-law-jd)

The Department of Computer Science (CS) offers other graduate programs leading to the degrees of Doctor of Philosophy in Computer Science and Master of Computer Science (MCS), as well as a Computer Science concentration under the interdisciplinary Master of Science in Bioinformatics. The MCS program is also available online for students who are working full-time and unable to come to campus.

The Master of Science (MS) in Computer Science is a research-oriented degree that can be counted toward the Computer Science PhD. For additional details and requirements refer to the department’s Graduate Degree Requirements (https://cs.illinois.edu/academics/graduate/ms-program) and the Graduate College Handbook (http://grad.illinois.edu/gradhandbook).

The Master of Science (M.S.) in Computer Science is a research-oriented degree that can be counted toward the Computer Science PhD. For additional details and requirements refer to the department’s Graduate Degree Requirements (http://cs.illinois.edu/academics/graduate/ms-program) and the Graduate College Handbook (http://grad.illinois.edu/gradhandbook).

Requirements

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<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>CS 599</td>
<td>Thesis Research (minimum applied toward degree)</td>
<td>4</td>
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<tr>
<td></td>
<td>Breadth Requirement - One course from each of three different (out of eight) core areas (<a href="http://cs.illinois.edu/current-students/graduate-students/ms-thesis">http://cs.illinois.edu/current-students/graduate-students/ms-thesis</a>)</td>
<td>9-12</td>
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<td></td>
<td>Advanced courses – One 500-level course from one of the three areas selected in the Breadth Requirement; Remaining hours from any 500-level CS course (500-590 or 598) except CS 591 or CS 597. An approved 500-level non-CS course may satisfy 4 credit hours of this requirement; CS 599 (thesis) may satisfy 4 credit hours of this requirement.</td>
<td>12</td>
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</tbody>
</table>

Elective courses (subject to Other Requirements and Conditions below) 4-7

Total Hours 32

Other Requirements

Requirement

Other Requirements and Conditions may overlap

A minimum of 16 CS credit hours must be taken from the University of Illinois at Urbana-Champaign campus.

A minimum of 12 500-level credit hours overall.

A maximum of 4 hours of CS 591 and CS 491 may be applied toward the degree.

A grade of B- or higher is required for Breadth Requirement course work.

At most, 12 semester credit hours of previous graduate course work may be transferred and applied to the M.S. degree requirements and 12 credit hours of non-degree graduate courses completed in the Department of Computer Science at the University of Illinois at Urbana-Champaign may be transferred and applied to the M.S. degree requirements.

It is each student’s responsibility to secure a M.S. thesis advisor and start thesis research no later than the beginning of the third semester in the program.

All degree requirements must be completed within five consecutive semesters (only fall and spring semesters are counted).

The minimum program GPA is 3.0.

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