COMPUTER SCIENCE, MCS

for the degree of Master of Computer Science in Computer Science (on campus or online)

The Department of Computer Science is one of the longest established computer science departments in the world and is consistently ranked as a top-5 graduate program.

The MCS in Computer Science is a professionally-oriented, coursework-based degree program offered as an on-campus program or online. The online option allows individuals to earn the MCS from a leader in information technology entirely online with no required campus visits. Online students have the option to complete the comprehensive MCS track or the MCS program with a data science track. All online classes are taught by our world-recognized faculty. Online students also receive additional instructional support from Computer Science Graduate Teaching Assistants and program staff. The on-campus MCS program is designed to allow students to complete the degree in as little as one year with a maximum of three continuous semesters. Online students have 5 years in which to complete the program.

Opportunity exists for specializing in computational science and engineering via the Computational Science & Engineering (http://catalog.illinois.edu/graduate/engineering/concentration/computational-science-engineering/) optional graduate concentration.

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 in computer science or computer engineering. The Graduate Record Examination (GRE) (http://www.ets.org/) general aptitude tests (Verbal, Quantitative, and Analytical) are not required. However, in some cases, GRE general scores may provide helpful supporting information.

Applicants to the MCS 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/).

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://grad.illinois.edu/admissions/instructions/04c/) are set by the Graduate College. Students applying to the online program must satisfy the full status admissions requirement or must meet the criteria to be exempt from submitting an approved English proficiency score.

Financial Aid
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. 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.

The Department of Computer Science does not offer research or teaching assistantships to students enrolled in our online programs, including the Online MCS.

Other Graduate Programs in the Department of Computer Science

degrees:
Computer Science, MS (http://catalog.illinois.edu/graduate/engineering/computer-science-ms/)

**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 Master of Science and Doctor of Philosophy in Computer Science, as well as a Computer Science concentration under the interdisciplinary Master of Science in Bioinformatics.

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For additional details and requirements refer to the department's Graduate Degree Requirements (http://cs.illinois.edu/academics/graduate/professional-mcs-program/) and the Graduate College Handbook (http://grad.illinois.edu/gradhandbook/).

**This degree program can be completed either on campus or online; the requirements are listed below:**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Breadth Requirement</td>
<td>Breadth Requirement (<a href="http://cs.illinois.edu/academics/graduate/professional-mcs-program/mcs-degree-requirements/">http://cs.illinois.edu/academics/graduate/professional-mcs-program/mcs-degree-requirements/</a>)</td>
<td>12-16</td>
</tr>
<tr>
<td>Advanced courses</td>
<td>Advanced courses – chosen from CS 500 - CS 590 and CS 598; CS 597, or an approved non-CS 500-level course may satisfy 4 credit hours of this requirement.</td>
<td>12</td>
</tr>
<tr>
<td>Select one of the following</td>
<td>Select one of the following - CS 591 Prof. Development (or comparable work experience in CS); or ENG 572 Professional Practicum (CS); or Elective course (subject to Other Requirements and Conditions)</td>
<td>0-4</td>
</tr>
<tr>
<td>Elective courses (subject to Other Requirements and Conditions below)</td>
<td>Elective courses (subject to Other Requirements and Conditions)</td>
<td>0-8</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td></td>
<td><strong>32</strong></td>
</tr>
</tbody>
</table>

**Other Requirements and Conditions**

- Other Requirements and Conditions may overlap
- A minimum of 24 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 course work.
- At most, 12 semester credit hours of previous graduate course work may be transferred and applied to the M.C.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 campus may be transferred and applied to the M.C.S. degree requirements.
- All degree requirements must be completed within three consecutive semesters (only fall and spring semesters are counted).
- Off-campus students have 5 years in which to complete this degree.
- The minimum program GPA is 3.0.

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1. Plan and conduct original research that addresses questions of significance in a particular subject area in Computer Science.
2. Analyze and be able to articulate the scientific advances and limitations of results described in the research literature.
3. Demonstrate the ability to effectively communicate research proposals and results.
4. Demonstrate in-depth knowledge of a particular subject area and broad knowledge of other areas in Computer Science.
5. Demonstrate an understanding of and ability to follow ethical standards in research, teaching, and professional service.
6. Demonstrate the ability to teach concepts in Computer Science at the university level. Additionally, for the MS Bioinformatics program:  

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*Information listed in this catalog is current as of 08/2022*
7. Demonstrate broad knowledge of topics in bioinformatics.
8. Demonstrate knowledge of at least one subject in biological sciences.

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director of graduate studies: Robin Kravets (rhk@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/
program website: https://cs.illinois.edu/academics/graduate/professional-master-computer-science/

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