MATHEMATICS & COMPUTER SCIENCE, BSLAS

for the degree of Bachelor of Science in Liberal Arts & Sciences Major in Mathematics & Computer Science

math website: Mathematics & Computer Science (https://math.illinois.edu/academics/undergraduate-program-mathematics)
computer science website: Mathematics & Computer Science (https://cs.illinois.edu/academics/undergraduate/degree-program-options/bs-mathematics-computer-science)
department website: Mathematics (https://math.illinois.edu)
department faculty: Mathematics Faculty (https://math.illinois.edu/directory/faculty-by-type)
overview of college admissions & requirements: Liberal Arts & Sciences (http://catalog.illinois.edu/schools/las/academic-units)
college websites: https://las.illinois.edu/ and https://engineering.illinois.edu
math email: mathadvising@illinois.edu
computer science email: undergrad@cs.illinois.edu

Undergraduate programs in Mathematics
Actuarial Science, BSLAS (http://catalog.illinois.edu/undergraduate/las/actuarial-science-bslas)
Mathematics, BSLAS (http://catalog.illinois.edu/undergraduate/las/mathematics-bslas/#text)
Mathematics & Computer Science, BSLAS (p. 1)

for the degree of Bachelor of Science in Liberal Arts and Sciences: Major in Mathematics & Computer Science

Departmental distinction: To graduate with distinction requires a specified minimum grade point average in all Computer Science and Mathematics courses listed below. A GPA of 3.25 is required for Distinction, 3.5 for High Distinction, and 3.75 for Highest Distinction. In addition, students must complete at least three semester hours of additional Computer Science or Mathematics courses selected from the following: CS 196, CS 296, CS 397, CS 492, CS 493, CS 499, any CS course numbered 411 or higher, MATH 412, MATH 414, MATH 417, MATH 418, MATH 423, MATH 432, MATH 448, MATH 482, MATH 484, MATH 496.

NOTE: A student taking a cross-listed course in this major may designate it as either mathematics or computer science.

General education: Students must complete the Campus General Education (https://courses.illinois.edu) requirements including the campus general education language requirement.
Minimum required major and supporting course work: Normally equates to 70 hours. Twelve hours of 300- and 400-level in the major must be taken on this campus.
Minimum hours required for graduation: 120 hours.

Requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>CS 100</td>
<td>Freshman Orientation (recommended)</td>
<td>0-1</td>
</tr>
<tr>
<td>Calculus through MATH 241-Calculus III</td>
<td>11-12</td>
<td></td>
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<tr>
<td>MATH 347</td>
<td>Fundamental Mathematics</td>
<td>3</td>
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<tr>
<td>or MATH 348 Fundamental Mathematics-ACP</td>
<td>4</td>
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400-level mathematics and computer science requirements: 18
Students must select at least six 400-level mathematics and computer science courses, including one from each of the following groups:

GROUP I
CS 361 Probability & Statistics for Computer Science (recommended)
MATH 461 Probability Theory
STAT 400/ MATH 463

GROUP II
MATH 412 Graph Theory
MATH 417 Intro to Abstract Algebra

GROUP III
MATH 441 Differential Equations
MATH 446 Applied Complex Variables
MATH 484 Nonlinear Programming

GROUP IV
MATH 444 Elementary Real Analysis
MATH 447 Real Variables

GROUP V
MATH 414 Mathematical Logic
CS/MATH 473 Algorithms

GROUP VI
CS/MATH 475 Formal Models of Computation
CS 476 Program Verification
CS 477 Formal Software Development Methods
CS 481 Advanced Topics in Stochastic Processes & Applications
CS 482 Simulation