COMPUTER SCIENCE + CROP SCIENCES, BS & CROP SCIENCES, MS
for the degree of Bachelor of Science in Computer Science + Crop Sciences and the Master of Crop Sciences

crop sciences department information: https://cropsciences.illinois.edu/
computer science degree information: https://cs.illinois.edu/
academics/undergraduate/degree-program-options/cs-x-degree-programs#requirements (https://cs.illinois.edu/academics/undergraduate/degree-program-options/cs-x-degree-programs/#requirements)
overview of college admissions & requirements: Agricultural, Consumer & Environmental Sciences (http://catalog.illinois.edu/schools/aces/academic-units/#text)
college websites: https://aces.illinois.edu/ and https://engineering.illinois.edu
computer science contact: undergrad@cs.illinois.edu (academic@cs.illinois.edu)
crop sciences contact: ugrad@cropsciences.illinois.edu

The five-year joint B.S.-M.S. program in Crop Sciences combines a B.S. in Crop Sciences with a non-thesis M.S. in Crop Sciences or a B.S. in Computer Science and Crop Sciences with a nonthesis M.S. in Crop Sciences. Current University of Illinois at Urbana-Champaign undergraduate students enrolled in the Department of Crop Sciences who have completed between 60 and 96 credit hours, maintain superior academic performance are eligible to apply for this program. Students admitted to the program will receive both degrees once all requirements for the B.S.-M.S. program are completed.

for the degree of Bachelor of Science in Computer Science + Crop Sciences and the Master of Crop Sciences

For the Computer Science + Crop Sciences, BS

Prescribed Courses including Campus General Education

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>RHET 105 &amp; CMN 101</td>
<td>Composition I and Speech</td>
<td>6-7</td>
</tr>
<tr>
<td>CMN 111 &amp; CMN 112</td>
<td>Oral &amp; Written Comm I and Oral &amp; Written Comm II</td>
<td></td>
</tr>
<tr>
<td>Advanced Composition</td>
<td>Select from campus-approved list.</td>
<td>3-4</td>
</tr>
<tr>
<td>Cultural Studies</td>
<td>Select one course from Western culture, one from non-Western culture, and one from U.S. minority culture from campus approved lists.</td>
<td>9</td>
</tr>
<tr>
<td>Foreign Language</td>
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</tbody>
</table>

Coursework at or above the third level is required for graduation.

Quantitative Reasoning I
See Mathematical Foundations for specific requirement. 3

Quantitative Reasoning II
See Mathematical Foundations for specific requirement. 3

Natural Sciences and Technology
See Crop Sciences Core for specific requirement. 6

Humanities and the Arts
Select from campus-approved list. 6

Social and Behavioral Sciences
Select from campus-approved list. 6

ACES Required
ACES 101 Contemporary Issues in ACES 2

Computer Science Core
CS 100 Freshman Orientation (recommended) 1
CS 124 Introduction to Computer Science I 3
CS 128 Introduction to Computer Science II 3
CS 173 Discrete Structures 3
CS 222 Software Design Lab 1
CS 225 Data Structures 4
CS 374 Introduction to Algorithms & Models of Computation 4
CS 421 Programming Languages & Compilers 3

Computer Science Technical Track
Choose from the following options:
CS 233 & CS 241 Computer Architecture and System Programming
OR
CS 240 Introduction to Computer Systems & Two CS 4XX Any two (2) 400-level CS courses except CS 491

Mathematical Foundations (fulfills Quantitative Reasoning I and II) 12-15
CS 361 Probability & Statistics for Computer Science 3
MATH 220 or MATH 221 Calculus Calculus I 4-5
MATH 225 Introductory Matrix Theory 2-4
or MATH 257 Linear Algebra with Computational Applications
or MATH 415 Applied Linear Algebra
or MATH 416 Abstract Linear Algebra
MATH 231 Calculus II 3

Crop Sciences Core 14
CPSC 102 Foundational Skills in Crop Sciences 2
CPSC 112 Introduction to Crop Sciences 4
CPSC 212 Introduction to Plant Protection 4
CPSC 393 Crop Sciences Internship 3
or CPSC 395 Undergrad Research or Thesis
CPSC 498 Crop Sci Professional Develpmt 1

Foundational Data Analytics 6-8
CPSC 440 Applied Statistical Methods I 4
And select one of the following:

Information listed in this catalog is current as of 11/2021
Computer Science + Crop Sciences, BS & Crop Sciences, MS

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPSC 441</td>
<td>Introduction to Spatial Analytics</td>
<td></td>
</tr>
<tr>
<td>CPSC 444</td>
<td></td>
<td></td>
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</tbody>
</table>

**Crop Sciences Electives**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPSC/HORT/ PLPA 4XX</td>
<td>At least one (1) 400-level CPSC/HORT/ PLPA course</td>
<td></td>
</tr>
<tr>
<td>CPSC/HORT/ PLPA XXX</td>
<td>Any CPSC/HORT/PLPA course except CPSC 241</td>
<td></td>
</tr>
</tbody>
</table>

**Total Hours**: 6

**For the Crop Sciences, MS Non-Thesis Option**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPSC 594</td>
<td>Professional Orientation CPSC</td>
<td>1</td>
</tr>
<tr>
<td>CPSC 598</td>
<td>Seminar (required each semester)</td>
<td>4</td>
</tr>
</tbody>
</table>

Electives including at least 4 hours of graded coursework at the 500 level other than CPSC 599 (elective courses are chosen in consultation with faculty advisor)

**Total Hours**: 27

**Other Requirements**

Other requirements and conditions may overlap

Minimum 500-level Hours Required overall: 12

Minimum GPA: 3.0

1 Twelve (12) hours of graduate level concentration electives in the BS requirements will overlap with 12 hours of electives required for the MS requirements.