## Computer Science-Data Science Double Major Pathway*

*Updated July 2022 to support recommended CS322 & Ethics, Concentrations, CS Early Start M.S., CS Accelerated Master’s Program, OR Major Transfer Map*

<table>
<thead>
<tr>
<th>Year</th>
<th>Fall Term</th>
<th>Winter Term</th>
<th>Spring Term</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>CS 122 Intro to Prog &amp; Prob Solv</td>
<td>DSCI 101 Found of Data Science I</td>
<td>DSCI 102 Found of Data Science II</td>
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<tr>
<td></td>
<td>MATH 112 Elementary Functions</td>
<td>MATH 251 or 261 or 246 Calculus I</td>
<td>MATH 252 or 262 or 247 Calculus II</td>
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<tr>
<td></td>
<td>WR 121 College Composition I</td>
<td>WR 122 College Composition II</td>
<td>Core Ed (Arts &amp; Letters)</td>
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<tr>
<td></td>
<td>Core Ed (Social Science)</td>
<td>Core Ed (Art &amp; Letters)</td>
<td>Core Ed (Social Science)</td>
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<tr>
<td>2</td>
<td>CS 210 Computer Science I</td>
<td>CS 211 Computer Science II</td>
<td>CS 212 Computer Science III</td>
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<tr>
<td></td>
<td>MATH 341 (1) Elementary Linear Algebra</td>
<td>MATH 342 (1) Elementary Linear Algebra</td>
<td>MATH 345M (1) Prob &amp; Stats Data Science</td>
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<tr>
<td></td>
<td>DSCI Domain 1</td>
<td>DSCI Domain 2</td>
<td>DSCI Domain 3</td>
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<tr>
<td></td>
<td>Core Ed (Arts &amp; Letters)</td>
<td>Core Ed (SSci/Multicultural)</td>
<td>Core Ed (A&amp;L/Multicultural)</td>
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<tr>
<td>3</td>
<td>CS 314 (2) Computer Organization</td>
<td>CS 313 (2) Intermediate Data Structures</td>
<td>CS 330 (2) C/C++ and Unix</td>
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<tr>
<td></td>
<td>MATH 231 Discrete Math I</td>
<td>MATH 232 Discrete Math II/override</td>
<td>CS 315 Intermediate Algorithms</td>
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<tr>
<td></td>
<td>DSCI 311 (3) Princ &amp; Tech Data Science</td>
<td>DSCI 372 (3) Machine Learning for DSC</td>
<td>PHIL 223 (4) Data Ethics</td>
</tr>
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<td></td>
<td>UO Elective</td>
<td>WR 320 or 321 Sci &amp; Tech or Bus Comm</td>
<td>DSCI Domain 4</td>
</tr>
<tr>
<td>4</td>
<td>CS 415 Operating Systems</td>
<td>CS 422 Software Methodology I</td>
<td>CS 425 Principles of Prog Lang</td>
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<td>CS Upper Division Elective (410 or higher) (5) (6)</td>
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<tr>
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<td>DSCI Domain 5 (7)</td>
<td>DSCI Domain 6 (7)</td>
<td>DSCI Domain 7/Capstone (7)</td>
</tr>
</tbody>
</table>

**Internship or REU**

CS 404/CS 399

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### Core Ed (Arts & Letters)
- WR 121 College Composition I
- WR 320 or 321 Sci & Tech or Bus Comm

### Core Ed (Social Science)
- MATH 112 Elementary Functions
- MATH 211 Calculus I

### MATH 231 Discrete Math I
- MATH 232 Discrete Math II/override
- MATH 233 Discrete Math III/override

### DSCI Domain 1
- DSCI 101 Found of Data Science I
- DSCI 102 Found of Data Science II

### DSCI Domain 2
- DSCI 201 Data Science I
- DSCI 202 Data Science II

### DSCI Domain 3
- DSCI 301 Data Science III
- DSCI 302 Data Science IV

### DSCI Domain 4
- DSCI 401 Data Science V
- DSCI 402 Data Science VI

### DSCI Domain 5
- DSCI 501 Data Science VII
- DSCI 502 Data Science VIII

### DSCI Domain 6
- DSCI 601 Data Science IX
- DSCI 602 Data Science X

### DSCI Domain 7
- DSCI 701 Data Science XI
- DSCI 702 Data Science XII

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*Note: All courses must be completed with a grade of C- or better.*
Notes

*A Computer Science (CS) and Data Science (DSCI) double major completes all of the courses required by both majors, and choosing electives carefully to take advantage of courses that count toward both majors:

(1) CS majors satisfy Math requirement with 341, 342, and 345M
(2) DSCI majors satisfy Computational and Inferential Depth requirement with required upper-division CS courses
(3) CS majors satisfy 2 (8 cr.) of CS upper-division elective requirements with DSCI 311 and 372

Also:
(4) PHIL 223 is required by DSCI and is also a Core Ed Social Science Core course
(5) possible concentration (formerly track) course
(6) possible CS Accelerated M.S. Program (AMP) course
(7) upper-division if needed to meet UO graduation requirements

And:
CS Science sequence is satisfied with DSCI major (petition must be filed)