Computer Science

CS 421  Programming Languages & Compilers  credit: 3 OR 4 hours.
Structure of programming languages and their implementation. Basic language design principles; abstract data types; functional
languages; type systems; object-oriented languages. Basics of lexing, parsing, syntax-directed translation, semantic analysis, and code
generation. 3 undergraduate hours. 3 or 4 graduate hours. Prerequisite: CS 233 or CS 240; CS 374.

<table>
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<tr>
<th>CRN</th>
<th>Type</th>
<th>Section</th>
<th>Time</th>
<th>Days</th>
<th>Location</th>
<th>Instructor</th>
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<td>Lecture-Discussion</td>
<td>B3</td>
<td>11:00 AM - 12:15 PM</td>
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<td>Beckman, A</td>
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<td>31376</td>
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<td>63757</td>
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<td>CSP</td>
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Credit Hours: 3 hours
Restricted to Computer Science or Statistics & Computer Science or Math & Computer Science or Computer Sci & Anthropology
or Computer Sci & Astronomy or Computer Sci & Chemistry or Computer Sci & Linguistics or Computer Science&Crop Sciences or
Computer Science and Music or Computer Science & Economics or Computer Science & Advertising or Computer Science & Geog
& GIS or Computer Science & Philosophy major(s).

Credit Hours: 4 hours
Restricted to Computer Science major(s). Restricted to Graduate - Urbana-Champaign.

Credit Hours: 3 hours
Restricted to Computer Science or Statistics & Computer Science or Math & Computer Science or Computer Sci & Anthropology
or Computer Sci & Astronomy or Computer Sci & Chemistry or Computer Sci & Linguistics or Computer Science&Crop Sciences or
Computer Science and Music or Computer Science & Economics or Computer Science & Advertising or Computer Science & Geog
& GIS or Computer Science & Philosophy major(s).

Credit Hours: 4 hours
Restricted to Computer Science major(s). Restricted to Graduate - Urbana-Champaign.

Credit Hours: 3 hours
Restricted to O/C Engineering City Scholars students.