## CS 4300: Artificial Intelligence
### Fall 2017 Schedule

<table>
<thead>
<tr>
<th>Day</th>
<th>Topic</th>
<th>Work Due</th>
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</thead>
<tbody>
<tr>
<td>W01</td>
<td>Rubik’s Cube - Complexity of Exhaustive Search</td>
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<tr>
<td>W01</td>
<td>What is AI?, Agent/Environment Model, Rationality, Environment Classification</td>
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<td>W01</td>
<td>Agent Structure, AI-Library</td>
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<tr>
<td>W02</td>
<td>Solving Problems by Searching</td>
<td>Rubik’s Cube Class</td>
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<tr>
<td>W02</td>
<td>Uninformed Search</td>
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<tr>
<td>W02</td>
<td>Uninformed Search</td>
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<tr>
<td>H Sep 4</td>
<td>Labor Day (no classes)</td>
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<tr>
<td>W03</td>
<td>Informed Search</td>
<td>02</td>
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<tr>
<td>W03</td>
<td>Informed Search</td>
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<tr>
<td>W04</td>
<td>Local Search</td>
<td>03</td>
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<tr>
<td>W04</td>
<td>Local Search</td>
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<tr>
<td>W04</td>
<td>Local Search</td>
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<tr>
<td>W05</td>
<td>File I/O</td>
<td>Assignment 3</td>
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<tr>
<td>W05</td>
<td>Types and Representations (Bitwise Operators)</td>
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<td>W05</td>
<td>Development Cycle: BDD</td>
<td>Assignment 4</td>
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<tr>
<td>W06</td>
<td>Creating Data Structures (Linked Lists)</td>
<td>Assignment 5</td>
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<tr>
<td>W06</td>
<td>Better Random Numbers</td>
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<tr>
<td>W06</td>
<td>Arguments, Parameters, Return Values (Functions)</td>
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<tr>
<td>W06</td>
<td>Version Control: Push/Pull</td>
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<tr>
<td>W07</td>
<td>Namespaces</td>
<td></td>
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<tr>
<td>W07</td>
<td>const</td>
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<tr>
<td>W07</td>
<td>Version Control: Branches</td>
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<tr>
<td>W08</td>
<td>Julia Set Introduction</td>
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<tr>
<td>W Oct 11</td>
<td>Midterm Examination</td>
<td>Midterm Examination</td>
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<tr>
<td>H Oct 12-13</td>
<td>Fall Break (no classes)</td>
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<tr>
<td>W09</td>
<td>Preprocessor, Conditionals, MACROS</td>
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<tr>
<td>W09</td>
<td>Inheritance, Polymorphism</td>
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<td>W09</td>
<td>Templates: Generic Functions and Classes</td>
<td>Assignment 6</td>
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<td>W09</td>
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<tr>
<td>W10</td>
<td>What’s in a DNA Strand?</td>
<td>Assignment 7</td>
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<td>W10</td>
<td>C-Strings (null-terminated arrays of chars)</td>
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<td>W10</td>
<td>Development Cycle: Input Partitioning</td>
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<tr>
<td>W10</td>
<td>Review of Dynamic Memory, Pointers, Classes</td>
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<tr>
<td>W11</td>
<td>OpenGL Introduction</td>
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<tr>
<td>W11</td>
<td>OpenGL Example</td>
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<td>W11</td>
<td>Polymorphism (again), Beasts</td>
<td>Assignment 8</td>
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<tr>
<td>W12</td>
<td>TBA</td>
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<tr>
<td>W12</td>
<td>Casting</td>
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<tr>
<td>W12</td>
<td>Beast Behavior</td>
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<td>W12</td>
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<td>Assignment 9</td>
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<tr>
<td>W13</td>
<td>Exceptions (try/catch)</td>
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<tr>
<td>W13</td>
<td>Standard template library (vector/stack/queue)</td>
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<td>W13</td>
<td>The TSP</td>
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<td>W13</td>
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<td>Assignment 10</td>
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<tr>
<td>W14</td>
<td>Pointers and References (Asterisk vs Ampersand)</td>
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<tr>
<td>W14</td>
<td>Standard template library (list/map/iterator)</td>
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<td>W14</td>
<td>TSP Good Cycles</td>
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<td>W14</td>
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<td>Assignment 11</td>
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<td>H Nov 22-24</td>
<td>Thanksgiving Break (no classes)</td>
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<tr>
<td>W15</td>
<td>Standard template library (algorithm)</td>
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<td>W15</td>
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<td>W15</td>
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<td>Assignment 12</td>
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<tr>
<td>W16</td>
<td>Command Line Arguments</td>
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<td>W16</td>
<td>Recursion</td>
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<tr>
<td>W16</td>
<td>Final Exam Hints</td>
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<tr>
<td>W16</td>
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<td>Final Exam Preparations</td>
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<tr>
<td>W Dec 13</td>
<td>Final Exam 9:00 am - 11:00 am</td>
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Class announcements may modify schedule from that listed above.