## CSE 3502
### Theory of Computation
#### Spring 2016

<table>
<thead>
<tr>
<th>Instructor:</th>
<th>Prof. Alexander A. Schwarzmann</th>
<th>Tel: 486-2672</th>
<th>Email: <a href="mailto:aas@cse.uconn.edu">aas@cse.uconn.edu</a></th>
</tr>
</thead>
<tbody>
<tr>
<td>TA:</td>
<td>Mr. Asa Thibodeau</td>
<td>Email: <a href="mailto:asa.thibodeau@uconn.edu">asa.thibodeau@uconn.edu</a></td>
<td></td>
</tr>
<tr>
<td>Schedule:</td>
<td>Monday and Wednesday 1:25PM - 2:40PM, AUST 110</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Office Hours:</td>
<td>ITE 250: office hours Thursday 1PM – 2PM and by appointment, walk-ins are welcome</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| Topics:     | • Introduction to theoretical aspects of computing  
              • Models of computation  
              • Formal languages and their relationship to automata  
              • Regular expressions, grammars, languages, finite-state automata  
              • Push-down automata and context-free languages  
              • Linear-bounded automata and context-sensitive languages  
              • Turing machines, recursive languages, recursively enumerable languages  
              • Decidability and reductions  
              • Time complexity, the classes P and NP  
              • NP Completeness, complete problems, reductions |
| Structure and Grading: | • Homework Assignments: There will be several assigned homeworks.  
                            o You are required to submit all but two homeworks during the course, i.e., you may choose not to submit any two homework assignments.  
                            o Late policy: No late work will be accepted.  
              • Tests: There will be two in-class tests and the final exam. The final exam will be given during the final exam period. All tests are closed-book/notes/phones/etc.  
              • Grading: Homeworks: 20%, Tests: 40% (20% each), Final exam: 40%  
              • The University regulations and the CSE 3502 Honor Code will be applied to all cases of plagiarism and academic misconduct (see the CSE 3502 Honor Code for details). |