Office Hours. TO BE DETERMINED

Content. • Regular Expressions and Finite Automata
• Grammars and Pushdown Automata
• Turing Machines and Undecidability
• Overview of Complexity

Goals/Learning Outcomes.
• Design a finite-state machine or regular expression for a given language.
• Convert among notations for a given regular language.
• Design a context-free grammar, pushdown automaton, or Turing Machine for a given language.
• Explain the Church-Turing thesis and its significance.
• Explain why the Halting Problem has no algorithmic solution.
• Define the classes P and NP and explain the significance of NP-completeness.

Grade. The final Numerical mark is made up as follows (No substitutions).
• Three Tests: 40% total
• Homework assignments: 15% (will drop one)
• Quizzes: 15% (will drop one)
• Final exam: 30%
The cut-off for an A will be 90; the cut-off for a B will be 80; the cut-off for a C will be 69.

Assignments/Homework. Approximately 10; these will typically include problems with a range of difficulty from routine to very challenging. Unless otherwise specified, these assignments are strictly your group’s own work and are not to be shown to nor discussed with anyone else. Use of the Internet to find solutions or hints, unless otherwise specified, is not permitted.

Tests. Friday 7 February, Wednesday 11 March, Wednesday 15 April.
Final is 3pm Tuesday 28 April.

Quizzes. Quizzes will average once a week.

E-learning days. These will be 19 February and 13 March. For such a day, a short assignment will be posted that for grading purposes will count as a quiz.


For more rules and regulations, see reverse. In particular, note academic honesty policy and enforcement of hand-in times.