Math 362, Spring 2017 – tentative schedule

Topic / Textbook Section	Date Introduced (tentative)
1.1 – Mathematical Preliminaries and Notation	M 1/30
1.2 – Three Basic Concepts	M 2/6
2.1 – Deterministic Finite Accepters (DFA)	M 2/13
2.2 – Nondeterministic Finite Accepters (NFA)	W 2/15
2.3 – Equivalence of DFA and NFA	F 2/17
2.4 – State Minimization of Finite Automata	W 2/22
Test #1 – Chapters 1-2	Monday, February 27
3.1 – Regular Expressions	W 3/1
3.2 – Regular Expressions and Regular Languages	R 3/2
3.3 – Regular Grammars	M 3/6
4.1 – Closure Properties of Regular Languages	W 3/8
4.2 – Elementary Questions about Regular Languages	M 3/13
4.3 – Identifying Nonregular Languages	W 3/15
SPRING BREAK	M 3/20 – F 3/24
5.1 – Context-Free Grammars	M 3/27
5.2 – Parsing and Ambiguity	W 3/29
Test #2 – Chapters 3-5	Friday, March 31
6.1 – Methods for Transforming Grammars	M 4/3
6.2 – Chomsky and Greibach Normal Forms	R 4/6
6.3 – Membership Algorithm for Context-Free Grammars	M 4/10
7.1 – Nondeterministic Pushdown Automata (NPDA)	R 4/13
7.2 – NPDA and Context-Free Languages	F 4/14
Ch. 8 – Properties of Context-Free Languages (summary only; not to be covered in depth)	M 4/17
9.1 – The Standard Turing Machine	W 4/19
9.2 – Combining Turing Machines	M 4/24
9.3 – Turing's Thesis	R 4/27
Test #3, Chapters 6-9	Friday, April 28
10.1-10.3 – Alternate Models of Turing Machines (summary only; not to be covered in depth)	M 5/1
10.4 – A Universal Turing Machine	W 5/3
11.1 - Recursive and Recursively Enumerable Languages	R 5/4
12.1 – Some Problems That Cannot be Solved by Turing Machines	F 5/5
12.2 – Undecidable Problems for Recursively Enumerable Languages	M 5/8
Computational Complexity (P, NP, NP-complete) (Ch.14 *and/or* supplemental notes)	W 5/10
Final Exam (cumulative)	Thursday, May 18, 1:30-4:00 PM