

COSC341 Course Outline

No.	Lecture/Tutorial Topic
1	Preliminaries
2	Equivalence and Cardinality
3	Recursion and induction
4	Languages and regular expressions
5	Grammars
6	Finite automata
7	Non Determinism
8	Languages Regular and Irregular
9	Pushdown automata and context free languages
10	A "working" Turing machine
11	Turing machines
12	Different kinds of Turing machines and the Church-Turing thesis
13	Turing machines and computable functions
14	The halting problem
15	Problem reducibility
16	Performance and Complexity
17	Polynomial reducibility, NP-hard, NP-complete
18	Cook's Theorem (1)
19	Cook's Theorem (2) Proof of Cook's Theorem
20	Beyond 3-SAT
21	Graph-theoretic NP-complete problems
22	The landscape of NP-complete problems
23	NP-complete optimisation problems
24	Coping with NP-hardness (1)
25	Coping with NP-hardness (2)