

Logic Problem Solving

Course Topic Outline

Days	Primary Topics	Lecture Note Sections
Day 1 20-Jun	Intro to course Reflections on problem solving	1 2
Day 2 21-Jun	Combinatorics	3
Day 3 22-Jun	Problem Solving Logical Deduction Propositional Logic Truth Tables – Part 1 The Pigeonhole Principle	4 5 6 7 8
Day 4 23-Jun	The Conditional The Converse and The Contrapositive The Biconditional Representing Statements Symbolically Parse Trees Chasing Truth More on Truth Tables	9 10 11 12 13 14 15
Day 5 24-Jun	Tautologies & Propositional Functions Diagramming Arguments Proofs More Inference Rules Proof Strategies	16 17 18 19 20
Day 6 27-Jun	Number Systems, Diagonalization and The Infinite Intro to Number Theory	21 22
Day 7 28-Jun	More Number Theory Investigating Bases	22 23
Day 8 29-Jun	Introduction to Graph Theory	24
Day 9 30-Jun	Additional Topics In Logic Probability The Binomial Theorem	25 26 27
Day 10 1-Jul	Analyses of Games Wrap up	28 29