

Syllabus for MTH 257 – Discrete Mathematics for Computing
Department of Mathematics and Statistics, Wright State University

Text: Judith Gersting, *Mathematical Structures for Computer Science – A Modern Approach to Discrete Mathematics*, 6th Edition

Section	Time
Chapter 1. Formal Logic	3 wk
1.1 Statements, Symbolic Representation, and Tautologies	1 wk
1.2 Propositional Logic	0.5 wk
1.3 Quantifiers, Predicates, and Validity	1 wk
1.4 Predicate Logic	0.5 wk
Chapter 2. Proofs	1 wk
2.2 Induction	1 wk
Chapter 3. Sets and Combinatorics	2 wk
3.1 Sets	0.5 wk
3.2 Counting	0.5 wk
3.3 Principle of Inclusion and Exclusion; Pigeonhole Principle	0.5 wk
3.4 Permutations and Combinations	0.5 wk
Chapter 5. Graphs and Trees	1.5 wk
5.1 Graphs and Their Representations	1 wk
5.2 Trees and Their Representations	0.5 wk
Chapter 8. Modeling and Computation	1 wk
8.2 Finite-State Machines	1 wk