Math 322 Discrete Mathematics II (3 Hours Credit)
Wichita State University

Deals with discrete structures relevant to computer science, including
Relations, relation properties, and partial orderings.
Graph theory, including isomorphisms and connectivity.
Trees, tree traversal, and applications of trees.
Introduction to Boolean Algebra.
Modeling Computing: from Languages to Turing Machines.

Text: Discrete Mathematics and Its Applications, K.H. Rosen, 6th ed.

Exam I over Sections 8.1 - 8.6

Relations and Their Properties, *n*-ary Relations, Representing Relations, Closures, Equivalence Relations, and Partial Orderings.

Exam II over Sections 9.1 - 9.6

Graphs and Graph Models, Terminology and Special Types of Graphs, Representations and Isomorphisms, Connectivity, Euler and Hamilton Paths, and Shortest-Path Problems

Exam III over Sections 10.1 - 10.3, 11.1, 11.2

Introduction to Trees, Applications, Tree Traversal, Boolean Functions, and Representing Boolean Functions

Exam IV over Sections 12.1 - 12.5

Languages and Grammars, Finite-State Machines, Language Recognition, and Turing Machines.