1. Symbol Tables (Sedgewick 3.1)
2. Binary Search Trees (Sedgewick 3.2, 3.3)
   1. Insert (Insert-at-Leaf)
   2. Left and Right Rotations
   3. Insert-at-root
   4. 2-3 Trees
   5. Red-Black Trees
   6. Rank, Select, and Range function on Binary Trees
3. Hashing (Sedgewick 3.4)
   1. Hash Functions
      1. Honer’s Method
         1. hash = (R \* hash + s.charAt(i)) % tableSize
            1. where R is radix (int larger than largest char) (e.g. 257 (prime))

Hashing with Linear Probe

* 1. Double Hashing
  2. Zobrist Hashing (class notes)

1. Graphs (Sedgewick 4.1, first part of 4.2)
   1. Union-Find (Sedgewick 1.5)
   2. Adjacency Lists (Directed and Undirected)
   3. Depth-First Search
   4. Breadth-First Search
   5. Finding Paths ( Degrees of separation)
   6. Minimum Spanning Tree (Prim’s Algorithm) (Lazy and Eager Versions)