1. General
   - Apply concepts from the course to new problems
   - Understand the operation of algorithms that have been studied
   - Know the complexity of algorithms that have been studied

2. Tools of the Trade
   - asymptotic analysis
   - solving recurrences

3. Sorting in Linear Time
   - Counting Sort

4. Order Statistics
   - The Selection Problem
   - Selection in Expected Linear Time

5. Dynamic Programming
   - Matrix-Chain Multiplication
   - Longest Common Subsequence

6. Greedy Algorithms
   - Huffman Coding
   - Minimum Spanning Trees

7. NP-completeness
   - tractable problems: definition and examples
   - intractable problems: definition and examples
   - solving vs. verifying, P and NP
   - transforming problems
   - NP-complete problems