1. Pointers
   (a) Pointer indirection
   (b) Linked lists
      i. Operations: prepend, append, search, delete

2. C++ Classes
   (a) Public and private data and functions
   (b) Constructors & destructors
   (c) Function members
   (d) Friend functions
   (e) The “this” pointer
   (f) Overloaded operators
   (g) Scope resolution operator
   (h) Objects: declaring objects and using member functions

3. The “big three” and the “rule of three”
   (a) Copy constructor
   (b) Destructor
   (c) Overloaded assignment operator
   (d) Use of “big three” for memory management

4. Friend classes

5. Recursion
   (a) Recursion vs iteration
   (b) Solving simple problems using recursion
   (c) Recursive binary search

6. Inheritance
   (a) ”IS A” vs. ”HAS A” relation
   (b) Base classes
   (c) Derived classes

7. Templates
   (a) Template class vector

8. Problem solving skills