1. Chapter 1 Reading
   (a) Historical notes section 1.4

2. Computer Organization
   (a) Familiarity with the CPU diagram discussed in class
   (b) Components, their function(s)
   (c) Details of the fetch-decode-execute cycle

3. Algorithms
   (a) Pseudocode notation
      i. Assignment statements, input/output, if ..., while ....
   (b) Finding largest/smallest in an array
   (c) Pattern matching
   (d) Ability to trace an algorithm and understand its operation
   (e) Ability to modify an algorithm

4. Data representation
   (a) ASCII characters (don’t memorize the chart)
   (b) Two’s complement binary representation,
      i. Positive and negative integers
   (c) Converting from any base to base 10
   (d) Converting from base 10 to any other base

5. HTML tags — know the common tags discussed in class

6. Computer Circuits and Logic Gates
   (a) Transistor circuits
   (b) Logic gates: AND, OR, NAND, NOR, XOR, NOT
   (c) Given a circuit drawn with logic gates, construct a table of output values.
   (d) Given a table of output values (i.e., a logical function), construct a circuit (using
       logic gates) to implement that function.
   (e) Full adder
   (f) Multiplexor
   (g) Decoder