## CS311 PART 1 SUMMARY—Read and Memorize!

- Always decide the function prototypes first so that the client programmer can get started
- Put data members in PRIVATE so that the client will not be dependent on what you have chosen as data members and YOU CAN CHANGE them freely.
- Do not share the implementation file so that the client will not be dependent on how you coded them and YOU CAN CHANGE them freely.
- Always think of using reusable functions.
- Throw exceptions in functions and catch them in the client
- Arrays are on the Run Time Stack (static) but Vectors and linked lists are in the Heap(Dynamic).
- Static fast but wastes space; Dynamic slow by flexible size
- Always choose the best algorithm and the data structure for a problem
  - Time vs space decisions
  - o Easy to modify/extend?