

Topics List

- Review of CISC 1110
 - conditional statements
 - loops
 - functions
 - arrays
 - pass-by-value vs. pass-by-reference
 - etc.
- UNIX
 - cd
 - mkdir
 - mv
 - cp
 - g++
 - nano
 - pwd
 - ls
 - cat
- Structures
 - How to define structures
 - How to initialize structures (with and without initialization lists).
 - How to pass structures to functions (const reference vs reference and when to use each one.)
 - How to deal with arrays of structures
 - How to deal with structures with arrays inside of them
 - How to deal with arrays of structures each of which has an array inside of it.
 - etc.
- Pointers
 - How to follow a program that uses pointers to manipulate an array
 - The difference between * and &, and what these do.

- How to use pointers as reference parameters.
 - How to dynamically allocate and deallocate an array of values (or a single value).
 - How to dynamically allocate and deallocate a structure.
 - What `->` is used for and what it is shorthand notation for.
 - How to pass a dynamic array to a function
- C-Strings
 - How C-Strings are laid out in memory.
 - How to input and output C-Strings using `cout` and `cin.getline()`.
 - How to iterate through a C-String performing some operation based on the characters.
 - What `strlen()`, `strcpy()`, `strcat()`, and `strcmp()` do.
 - Use `strlen()`, `strcpy()`, `strcat()`, and `strcmp()` (possibly together with dynamic memory allocation) to solve problems.