# CSCI 161 – Final Exam Review

## General Notes for Final Examination:

- No multiple-choice
- No fill-in-the-blank
- Short answer and coding questions
- Partial credit awarded
- No more than five pages
- 125 points

#### Material

## **Everything from the first two exams PLUS**

- File Processing
  - Concept of a File
  - o FileNotFoundException what is its purpose?
  - Using a Scanner to read information
  - Lab 9: Diver Score
- Arrays
  - Declaring an array
  - o Initialization
  - Indexing
  - o Index vs. Element
  - Arrays class (copyOf, sort)
  - Various uses (tallying, store information of unknown size, etc)
  - Lab 10: MUTunes
- Classes
  - What is an abstraction
  - What is encapsulation
  - Fields and member functions
  - State vs. behavior
  - Know how to write and use a simple class
  - Lab 11: MUTunes (Object)
- Recursion
  - Base case
  - Recursive problem solving
  - Tracing of Recursive methods
  - Implementing recursive strategies
  - o Lab 12: Recursion
- Miscellaneous
  - For-each loop

### You will be writing code on this exam.