

## Final Exam Study Guide CPE/CSC 203

Fall 2021

**This list is not necessarily exhaustive. Just because it isn't on the list doesn't mean it won't be on the midterm. This exam will cover all the Lecture materials, Labs, and Project. The format of test is based on:**

- **True/False ,**
- **Fill in the blank**
- **Short answer,**
- **Partial code,**

Material from the Exam 1 Study Topics

Material from the Exam 2 Study Topics

- 1) A\* algorithm, DFS, BFS
  - a. general idea of what it does
  - b. ability to step through the algorithm
- 2) Stream
- 3) Exceptions
  - a. Philosophical differences between checked and unchecked exceptions
  - b. Behavioral differences between checked and unchecked exceptions
  - c. Flow of execution with exception handling
  - d. Writing your own exceptions
- 4) Vocabulary – Know what the following terms mean.
  - a. object
  - b. instantiation
  - c. constructor
  - d. reference
  - e. cohesion
  - f. extends
  - g. implements
  - h. Is-A
  - i. generic
  - j. override
  - k. overload
  - l. Design Patterns
    - i. strategy design pattern
- 5) UML diagrams Be able to draw/understand UML diagrams using notations for:
  - a. Extends (Is-A)
  - b. Implements (Is-A)

- 6) Understand ALL code (and be able to read/write similar code) that you have written for Labs.
- 7) Understand ALL code (and be able to read/write similar code) that you have written for Projects.
- 8) Understand ALL code (and be able to read/write similar code) that has been handed out and/or discussed in class.