COP 3331
OBJECT ORIENTED DESIGN
SPRING 2017

WEEK 15: REVIEW

SCHINNEL SMALL

USF
UNIVERSITY OF
SOUTH FLORIDA

WHAT TO EXPECT ON FINAL

FINAL EXAM INFO

- Date: Wednesday May 3rd
- Time: 3:00pm – 5:00pm*
- Duration: 2hrs*
- Location: ENA*

*Time, duration and location may vary for students with prior authorization for accommodations)

FINAL EXAM INFO

- Multiple Choice (60%)
  - 15 questions @ 4 points each
  - No room for partial credit ☹
- Free form questions (40%)
  - 2-4 questions
  - Questions may be segmented into parts
  - Partial credit offered

FINAL EXAM INFO

- This is a **closed book/note** exam
- The exam will include an honor pledge, which you must sign!
  - **10 point deduction** if not signed
  - Violate pledge -> F
  - Make a scene after caught cheating -> FF, police escort, incident logged on records, etc...

FINAL EXAM INFO

- There will be a full topic list on canvas containing the specific topics that are mentioned in the midterm
  - Keep an eye on that list as I complete the exam
- The multiple choice questions may take the form of conceptual questions
  - Know definitions of terms, “walk through” C++ syntax
- The free form questions require you to write C++ code
  - You will not be expected to write full C++ programs!

REVIEW

REVIEW

- In weeks 5 and 7, we discussed overloading operators

- You should:
  - Examine the syntax for overloading operators, such as: << and >>
  - Know how to create an overloaded operator
    - Look at the feet inches example
  - Know what a friend function is

REVIEW

- In week 7 we talked about *copy constructors*

- You should know:
  - What copy constructors are
  - When copy constructors should be used
  - What type of parameter is required for a copy constructor

REVIEW

- In week 9 we discussed inheritance

- You should
  - Know the difference between a base class and a derived class
  - Know the difference between private and protected class members
  - Know the order ithat constructors are destructors are called for base classes and derived classes

REVIEW

- We also discussed polymorphism

- You should:
  - Know what polymorphism is
  - Know what a virtual function is
  - Understand the difference between static binding and dynamic binding

REVIEW

- In week 12, we discussed templates and the standard template library

- You should know:
  - How to create a function template
  - How to use a vector with an *iterator* (Week 12, example 6)
  - How to use the begin and end member functions
  - The difference between sequence and associative containers

REVIEW

- In week 13, we discussed exceptions

- You should know:
  - The difference between a try block and an catch block
  - The flow of execution in code for try/catch blocks
  - How to create and throw an exception
    - e.g. an exception for an incorrect type
  - What an exception class is

REVIEW

- We also discussed linked lists

- You should know:
  - How to create a node
  - The difference between a singly linked list and a doubly linked list

REVIEW

- Last week we discussed searching and sorting algorithms

- You should know:
  - The differences between the linear and binary searches
  - The difference between the bubble and selection sort