

# Final Exam

- 4:00 pm – 5:40 pm, Dec. 13<sup>th</sup>, 2019
- Location: East Lower Hall 111 (F111)
- Closed book and closed notes
- No electronic devices are allowed
  - These include laptops and cell phones
  - We will show a clock on the screen

# Final Exam

- Written exam
  - Like midterm
  - A number of questions that only require you to provide a very short answer
  - A few questions that require you to write code on the paper
- Bring your student ID card for verification
- Abide by the **Honor Code!**

# Final Exam Topics

Range: Slide set 15 to 25

- Subtype and inheritance
- Virtual function
- Abstract base class (interface)
- Representation invariants
- Dynamic memory management and dynamic array
- Constructor taking default arguments and destructor
- Deep copy: copy constructor, overloaded assignment operator
- Linked list
- Template
- Container of pointers: one invariant and three rules
- Operator overloading
- Stack and queue
- STL sequential container