

## COVERAGE FOR EXAM #1

CS 586; Fall 2025

Exam #1 will be held on **Wednesday, October 1, 2025**, at **5:00 p.m.**

Location: 111 Stuart Building

The exam is a **closed-book and notes** exam.

Coverage for the exam:

- Modular design, information hiding, coupling, and cohesion.
- Object-oriented concepts: abstract data type, data encapsulation, inheritance, polymorphism, static and dynamic binding.
- Object-oriented design. Relationships between classes: aggregation, association, and inheritance. Class model. Sequence diagrams.
- OO design patterns: item description, whole-part, observer, state, proxy, and adapter patterns. [Textbook: Sections 3.1, 3.2; Section 3.4 (pp. 263-275); Section 3.6 (pp.339-343); Handout #1, class notes]

Sources:

- Textbook: F. Buschmann, et. al., Pattern-oriented software architecture, vol. I, John Wiley & Sons.
- Handout #1
- Class Notes