

February 27, 2019 Outline

Reading: *text*, §17, 14

Assignments: Homework 4, due March 8, 2019

1. Compiler-based flow mechanisms
 - a. Exceptions and infinite loops
 - b. Semaphores
 - c. Cobegin/coend
 - d. Soundness
2. Execution-based flow mechanisms
 - a. Fenton's Data Mark Machine
 - b. Variable classes
3. Examples
 - a. Android taint analysis
 - b. Firewalls
4. Principles of secure design
 - a. Principle of least privilege
 - b. Principle of fail-safe defaults
 - c. Principle of economy of mechanism
 - d. Principle of complete mediation
 - e. Principle of open design
 - f. Principle of separation of privilege
 - g. Principle of least common mechanism
 - h. Principle of least astonishment