## CSIS 4244 Test 2 - Topics

#### **Chapter 3 - Names, Scopes, and Bindings**

- Binding times
- Scope rules static & dynamic scoping

### Chapter 6 - Control Flow

- expressions
- side effects
- short circuiting
- assignment statement
- D-structures
- Go to
- Sequence, selection, repetition
- Guarded commands (deterministic vs. non-deterministic)

### **Chapter 8 – Subroutines and Control Abstraction**

- Parameter passing methods
  - o value, result, value-result, reference, name
- Aliases
- Procedures vs. functions
- Overloading
- Generics
- Buffer overflow

# **Chapter 10 – Functional Languages (Scheme)**

- Atoms & lists
- Node-pointer diagrams
- Arithmetic
- Basic list operations
- Conditional
- Trace function execution