

CSIS 3103 Exam 1 Topic Overview

Section exercises, Quick-check exercises, and Review questions are good sources of review.

Ch 1: Object-Oriented Programming and Class Hierarchies

- Abstract Data Types
- UML
- Java interfaces
- Primitive types
- Classes, objects, methods, parameters
- Inheritance and subclasses
- Is-a vs. Has-a
- Abstract classes
- Overloading, overriding, polymorphism
- Casting
- Exceptions and exception handling
- try – catch – finally
- Throw vs. catch
- Packages

Ch 2: Lists and the Collections Framework (2.1 – 2.6, 2.9, 2.11)

- Arrays
- The Collection and List interfaces
- The ArrayList class
- Generic collections
- Linked lists (single, double, circular)
- Algorithm efficiency
- Big-O notation
- Testing, unit testing
- Test data
- Debugging
- Class invariants

<ul style="list-style-type: none">Know terms and be able to use themBe able to complete partially written Java codeBe able to read and use method specificationsBe able to write a methodBe able to trace execution of Java code
--