CS2102 Topic Overview

Graphic breaking out the major themes of CS1101/2 and CS2102. Grayed-out items were covered in CS1101/2. Items in black will be in 2102.

- **Data Structures**
  - structs
  - lists
  - trees
  - BSTS
  - AVL trees
  - Heaps
  - Hashtables
  - Graphs

- **Program Design**
  - data definitions
  - templates
  - tests-first
  - ADTs
  - decomposition
  - encapsulation

- **Testing**
  - writing test cases
  - testing under mutation
  - testing programs with multiple correct answers

- **Java**
  - abstract classes
  - interfaces
  - generics
  - classes
  - objects
  - constructors
  - exceptions

- **Programming Basics**
  - functions, conditionals, recursion,
  - higher-order functions, mutation