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

Programing Basics

functions, conditionals, recursion, higher-order functions, mutation