Syllabus

Week 1

Jan 6 Lecture 1: Data Definitions in Java

Jan 7 Lab 1: Introduction to Eclipse and Simple Data Definitions

Jan 8 Lecture 2: Data Definitions: Unions

Jan 9 Lecture 3: Methods for simple classes

Week 2

Jan 13 Lecture 4: Methods for unions

Jan 14 Lab 2: Working with Self-Referential Data

Jan 15 Lecture 5: Methods for self-referential lists

Jan 16 Lecture 6: Accumulator methods
Assignment 1 due at 9pm

Week 3

Jan 20 Lecture 7: Accumulator methods, continued
Assignment 2 (part 1) due at 9pm

Jan 21 Lab 3: Working with Lists and the Image Library
Assignment 2, self-eval for part 1 due at 10pm

Jan 22 Lecture 8: Practice Design

Jan 23 Lecture 9: Abstract classes and inheritance
Assignment 2 (part 2) due at 9pm

Week 4

Jan 27 Lecture 10: Customizing constructors for correctness and convenience
Assignment 3 (part 1) due at 9pm

Jan 28 Lab 4: Working with Abstract Classes, Problem Solving
Assignment 3, self-eval for part 1 due at 10pm

Jan 29 Lecture 11: Defining sameness for complex data, part 1

Jan 30 Lecture 12: Defining sameness for complex data, part 2
Assignment 3 (part 2) due at 9pm

Week 5

Feb 3 Lecture 13: Abstracting over behavior

Feb 4 Lab 5: Working with the debugger

Feb 5 Lecture 14: Abstractions over more than one argument

Feb 6 Lecture 15: Abstracting over types
Assignment 4 due at 9pm

Week 6

Feb 10 Lecture 16: Visitors

Feb 11 Lab 6: Exam review

Feb 12 Lecture 17: Mutation

Feb 13 Exam review
Exam 1 at 6pm

Week 7

Feb 17 No class: Presidents' Day

Feb 18	Lab 7: Higher-order functions
Feb 19	Lecture 18: Mutation inside structures
Feb 20	Lecture 19: Mutation, aliasing and testing Assignment 5 due at 9pm

Week 8

Feb 24	Lecture 20: Mutable data structures
Feb 25	Lab 8: Working with Cyclic Data
Feb 26	Lecture 21: ArrayLists
Feb 27	Lecture 22: ArrayLists Assignment 6 due at 9pm

Week 9

March 10	Lecture 23: For-each loops and Counted-for loops
March 11	Lab 9: Working with ArrayLists and Loops
March 12	Lecture 24: While loops
March 13	Lecture 25: Iterator and Iterable Assignment 7 due at 9pm

Week 10

March 17	Lecture 25: Iterator and Iterable Assignment 8, part 1 due at 9pm
March 18	Lab 10: Iterators and Iterables Assignment 8, self-eval for part 1 due at 10pm
March 19	Lecture 26: Hashing and Equality

March 20	Lecture 27: Introduction to Big-*O* Analysis Assignment 8 due at 9pm

Week 11

March 24	Lecture 28: Quicksort and Mergesort
March 25	Lab 11: Working with iterators
March 26	Lecture 29: Priority Queues and Heapsort
March 27	Lecture 30: Breadth-first search and Depth-first search on graphs Assignment 9 part 1 due at 9pm

Week 12

March 31	Lecture 30: Breadth-first search and Depth-first search on graphs Assignment 9 part 2 due at 9pm
April 1	Lab 12: Exam 2 review
April 2	Exam Review
April 3	Lecture 32: Minimum Spanning Trees Exam 2 at 6pm

Week 13

April 7	Lecture 31: Dijkstra's Algorithm for single-source shortest paths
April 8	Lab 13
April 9	Lecture 33: Implementing Objects
April 10	Lecture 34 Assignment 10, part 1 due at 9pm

Week 14

April 14	Wrap-up
April 15	Assignment 10, part 2 due at 9pm