PIC 10B: Intermediate Computer Programming

Winter 2010, UCLA

SYLLABUS **SCHEDULE** HOMEWORK EXAMS

Textbook Problems: Solutions to Odd-Numbered Problems in Big C++

Week	Date	Big C++ Reading	Topic	Materials
1	Mon 1/4	Skim Ch 1-4	Review: Input/Output & Functions	Lecture 1 Notes 10A File I/O Notes PIC Lab Intro Handout File I/O Handout
	Wed 1/6	Skim Ch 6-7	Review: Arrays, Vectors, & Pointers	Lecture 2 Notes 10A Array Notes 10A Vector Notes 10A Pointer Notes Big C++ Vector Notes
	Fri 1/8	11.3	Introduction to Big O Notation	Lecture 3 Notes Wiki: Best-Average-Worst Wiki: Subset Sum Problem Wiki: Traveling Salesman Problem
2	Mon 1/11	5.1-5.9, 15.1-15.2	Class Constructors	Lecture 4 Notes Big C++ Classes I Notes
	Wed 1/13	15.3-15.4	Class Destructors	Lecture 5 Notes Big C++ Classes II Notes
	Fri 1/15	Finish HW	NO CLASS HW 1 Due	
3	Mon 1/18	Rest!	MLK Day No Class	
	Wed 1/20	14.1-14.5	Operator Overloading & Friends	Lecture 6 Notes Big C++ Classes III Notes
	Fri 1/22	16.1-16.4	Template Functions & Classes HW 2 Due, Solution	Lecture 7 Notes Big C++ Templates Notes The Pair Class: 1 2 3 The SortedList Class
	Mon 1/25	10.1-10.3	Introduction to Recursion	Lecture 8 Notes

4	Wed 1/27	10.4-10.6	Examples of Recursion	Lecture 9 Notes Fibonacci Numbers Program Big C++ Recursion Notes Star Wars Bunnies Movie
	Fri 1/29	10.6, 11.6	Recursion Analysis & Binary Search HW 3 Due	Lecture 10 Notes Search Comparison Program Big C++ Searching Notes
5	Mon 2/1	STUDY!	**Midterm Exam 1** Exam 1 Solutions	Practice Exam 1, Solutions S07 Exam 1 Solutions W08 Exam 1 Solution S08 Exam 1 Solutions W09 Exam 1 Solutions
	Wed 2/3	12.1-12.2	Linked Lists	Lecture 11 Notes
	Fri 2/5	12.3	Linked List Functions HW 4 Due	Lecture 12 Notes Linked List Demo Program Linked List Basics Big C++ Linked List Notes
6	Mon 2/8	12.4	Stacks	Lecture 13 Notes Stack Demo Program Wiki: Stacks
	Wed 2/10	12.4	Queues	Lecture 14 Notes The Queue Class: 1 2 Bank Line Simulator Program Wiki: Queues
	Fri 2/12	13.2	Binary Search Trees HW 5 Due	Lecture 15 Notes The Tree Class: 1 2 Tree Demo Program Stanford BST Notes Wiki: Binary Search Trees
7	Mon 2/15	Rest!	Presidents Day No Class	
	Wed 2/17	13.2	Binary Search Trees	Lecture 16 Notes
	Fri 2/19	13.3	Tree Traversal HW 6 Due	Lecture 17 Notes
8	Mon 2/22	13.3	Tree Traversal	Lecture 18 Notes Wiki: Tree Traversal
	Wed 2/24	11.1-11.3	Basic Sorting Algorithms	Lecture 19 Notes Wiki: Selection Sort Wiki: Insertion Sort
	Fri 2/26	11.4-11.5	Mergesort & Quicksort HW 7 Due	Lecture 20 Notes Wiki: Merge Sort Wiki: Quick Sort

				Sorting Animations
9	Mon 3/1	STUDY!	**Midterm Exam 2** Exam 2 Solutions	Practice Exam 2, Solutions S07 Exam 2 Solutions W08 Exam 2 Solutions S08 Exam 2 Solutions W09 Exam 2 Solutions
	Wed 3/3	13.5-13.6	Heaps & Priority Queues	Lecture 21 Notes Heap Demo Program Wiki: Binary Heaps Wiki: Heap Sort Big C++ Heaps Notes
	Fri 3/5	Wiki Notes	Hash Tables: Concept HW 8 Due	Lecture 22 Notes Wiki: Hash Tables
10	Mon 3/8	Wiki Notes	Hash Tables: Implementation	Lecture 23 Notes The HashTable Class
	Wed 3/10	Wiki Notes	Hash Tables: Advanced Hashing	Lecture 24 Notes Multi-Key Hash Table Program
	Fri 3/12	Ch. 1-16	Review HW 9 Due	Lecture 25 Notes
	Sun 3/14	STUDY!	**Final Exam** Sunday 3:00-6:00 Young Hall 24	Practice Final Exam, Solutions S07 Final Exam, Solutions W08 Final Exam, Solutions Spring 2008 Final Exam, Solutions Winter 2009 Final Exam, Solutions