COURSE OUTLINE – subject to changes :

L-1	Mon 23 Aug	P.1-3	welcome to mcs 360, our first C++ programs
L-2	Wed 25 Aug	P.4-6	control statements, types, objects, pointers
L-3	Fri 27 Aug	P.7-9	references, functions, arrays, strings, streams
L-4	Mon 30 Aug	1.1-4	software design, abstract data types and classes
L-5	Wed 1 Sep	1.5-8	unified modeling language, a case study
L-6	Fri 3 Sep	2.1-3	bugs and exceptions, testing programs
	Mon 6 Sep	**Labor Day – no classes**	
L-7	Wed 8 Sep	2.4-6	debugging, correctness, and efficiency
L-8	Fri 10 Sep	3.1-3	inheritance and polymorphism, abstract classes
L-9	Mon 13 Sep	3.4-6	refactoring, namespaces, visibility, class hierarchies
Project One due by noon on Wednesday 15 September			
L-10	Wed 15 Sep	4.1-4	template classes, vector class, copy, assignment
L-11	Fri 17 Sep	4.5-7	the list class and implementations
L-12	Mon 20 Sep	4.8-10	application, standard library containers and algorithms
L-13	Wed 22 Sep	5.1-2	the stack ADT and case studies
L-14	Fri 24 Sep	5.2-3	implementing a stack
L-15	Mon 27 Sep	5.3-4	evaluating and converting expressions
L-16	Wed 29 Sep	6.1-2	the queue ADT and one implementation
L-17	Fri 1 Oct	6.1-2	implementations of a queue, a deque
Project Two due by noon on Monday 4 October			
L-18	Mon 4 Oct	6.3-4	deque, simulations: a case study
L-19	Wed 6 Oct		review for the first midterm exam
L-20	Fri 8 Oct		**first midterm exam covers up to chapter 6**
L-21	Mon 11 Oct	7.1-3	recursive definitions, divide and conquer
L-22	Wed 13 Oct	7.3-4	binary search, efficiency and memoization
L-23	Fri 15 Oct	7.5	enumeration, backtracking, recursion and iteration
L-24	Mon 18 Oct	8.1-3	trees, traversals, implementing binary trees
L-25	Wed 20 Oct	8.4-5	binary trees and heaps
L-26	Fri 22 Oct	8.5-6	priority queues, Huffman trees
Project Three due by noon on Monday 25 October			
L-27	Mon 25 Oct	9.1-2	associative container requirements; maps and multimaps
L-28	Wed 27 Oct	9.3-4	hash functions and hash tables
L-29	Fri 29 Oct	9.5-6	implementation considerations; case studies
L-30	Mon 1 Nov	10.1-4	sorting in C++, selection, bubble and insertion sort
L-31	Wed 3 Nov	10.5-7	comparisons, shell and merge sort
L-32	Fri 5 Nov	10.8-10	heapsort, quicksort, testing sorting algorithms
L-33	Mon 8 Nov	11.1-2	tree balance and rotation; AVL trees
L-34	Wed 10 Nov	11.3-4	Red-Black Trees; 2-3 Trees
L-35	Fri 12 Nov	11.5	2-3-4 and B-trees
Project Four due by noon on Monday 15 November			
L-36	Mon 15 Nov		review for the second midterm exam
L-37	Wed 17 Nov		**second midterm exam on chapters 7 to 11**
L-38	Fri 19 Nov		solving recurrences, the substitution method
L-39	Mon 22 Nov		the recursion-tree method
L-40	Wed 24 Nov		the master method for recurrences
	Fri 26 Nov	**Thanksgiving break – no classes**	
L-41	Mon 29 Nov		review of materials convered before first midterm
L-42	Wed 1 Dec		review of topics between midterms
Project Five due by noon on Friday 3 December			
L-43	Fri 3 Dec		comprehensive review

Final exam on Tuesday 7 December 2010, from 8AM to 10AM, room to be announced.