Schedule of lectures in Constructing Software Systems

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(9/7) **Preliminaries I** (Chapter 1 and 2)
Primitive types, operators, statements, methods, reference types, exception handling, input and output.

(9/14) **Preliminaries II** (Chapter 3 and 4)
Classes, packages, inheritance, interfaces, generics, function objects.

(9/21) **Algorithms I** (Chapter 5 and 6)
Algorithm analysis, big-oh notation, Java Collections API.

(9/28) **Algorithms II** (Chapter 7)
Recursion, divide-and-conquer, dynamic programming, backtracking.

(10/5) **Algorithms III** (Chapter 8 and 9)
Insertion sort, mergesort, quicksort, randomization.

(10/12) **Applications I** (Chapter 10 and 11)
Games, parsing.

(10/19) **Applications II** (Chapter 12 and 13)
File compression, simulation.

(10/26) **Applications III** (Chapter 14)
Graphs, the shortest-path problem, topological sorting.

(11/2) **Implementations I** (Chapter 15, 16, and 17)
Inner classes, stacks, queues, linked lists.

(11/9) **Implementations II** (Chapter 18 and 19)
General trees, binary trees, tree traversal, binary search trees.

(11/16) **Implementations III** (Chapter 20 and 21)
Hashing, binary heaps, external sorting,