

<u>Week</u>	<u>Topic</u>	<u>Reference</u>
<b>(1) 5 Jul 16</b>	Introduction, Administrative Issues. Software Design, Tools (Compilers, IDEs, etc.), Java Review, Methods, expressions, control flow. Big O Notation, Classes, Packages, Parameters	Chapter 1, 2
<b>(2) 7 Jul 16</b>	Collection Classes, Linked Lists – Arrays, Methods, Static vs. Dynamic objects, Bag Abstract Data Type, Nodes, Node tools, and Linked List Tools	Chapters 3,4
<b>(3) 12 Jul 16</b>	Generics – Wrapper Classes, and Autoboxing. Generic Classes, Generic Nodes, Interfaces, and Iterators	Chapters 5
<b>(4) 14 Jul 16</b>	Stacks – Introduction, Applications, Abstract Data Types, Array Based, Linked List Based Stacks. Project 1 assigned.	Chapters 6
<b>(5) 19 Jul 16</b>	Queues – Introduction, Applications Abstract DataTypes. Linked Queue implementations, array based queue implementations, Review for Midterm	Chapters 7
<b>(7) 21 Jul 16</b>	Midterm Exam	
<b>(6) 26 Jul 16</b>	Recursive Thinking - Examples, theory implementations of recursion.	Chapters 8
<b>(8) 28 Jul 16</b>	Trees – Binary Trees, Linked and Array based representations Traversals, In-Order, Pre-Order, Post Order. Project 1 due. Project 2 assigned.	Chapter9
<b>(9) 2 Aug 16</b>	Searching – Serial searching, Binary searching, Open Address Hashing, Chained Hashing	Chapter11
<b>(10) 4 Aug 16</b>	Sorting – Quadratic Sorting Algorithms, Recursive Sorting Algorithms, Heaps	Chapter12
<b>(11) 9 Aug 16</b>	Graphs – Directed, and undirected Graphs, Dijkstra’s Shortest Path Algorithm, Review for Final Exam.	Chapter14
<b>(12) 11 Aug 16</b>	Final Exam. Project 2 due.	

This syllabus is subject to change.