**Section 1: Introduction**

**Introduction to the Course**

**Data Structures and ADT’s**

* Arrays
* Lists
* Stacks
* Queues
* Hashtables
* Trees
* Heaps
* Sets

**Algorithms**

* Search Algorithms
* Sort Algorithms
* Recursion

**Format**

* Theory
* Simple Implementation
* What’s in the JDK?

**Introduction to Data Structures**

**Data Structure**

* Organizes and stores data
* Each has strengths and weaknesses
* “The fact is, there aren’t just two sides to any issue, there’s almost always a range of responses, and ‘it depends’ is almost always the right answer in any big question” – Linus Torvalds

**Algorithms**

* There can be more than one algorithm for accomplishing a task
* An algorithm is not an implementation; an algorithm describes the steps you must perform, and implementation is the code that you have to write
* There can be many implementations of the same algorithm