

Readings for CSCI 241

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Note: I have found a wonderful free Data Structures in Java book that we will be using the rest of the quarter:

<http://www.cs.williams.edu/~bailey/JavaStructures/Welcome.html>

29 March: Big Oh.

- *Building Java Programs*, chapter 13.
- *Introduction to Algorithms*, chapters 2 and 3.
- http://dept.cs.williams.edu/~bailey/JavaStructures/Book_files/JavaStructures.pdf, chapter 5.
- <https://rob-bell.net/2009/06/a-beginners-guide-to-big-o-notation/>
- <https://www.interviewcake.com/article/java/big-o-notation-time-and-space-complexity>

April 3: Merge sort,

- <http://www.cs.williams.edu/~bailey/JavaStructures/Welcome.html> Chapter 6
- <https://en.wikipedia.org/wiki/Logarithm>
- *Building Java Programs*, chapter 13.
- *Introduction to Algorithms*, chapters 2 and 7.
- https://en.wikipedia.org/wiki/Merge_sort

April 10: Quicksort

- <http://www.cs.williams.edu/~bailey/JavaStructures/Welcome.html> , Chapter 6
- <https://en.wikipedia.org/wiki/Quicksort>

April 11: Binary Trees

- <http://www.cs.williams.edu/~bailey/JavaStructures/Welcome.html> , Chapter 12

April 19 Priority Queues

- <http://www.cs.williams.edu/~bailey/JavaStructures/Welcome.html> , Chapter 13

April 24 Search Trees

- <http://www.cs.williams.edu/~bailey/JavaStructures/Welcome.html> , Chapter 14 (skip Red/Black trees)
- https://en.wikipedia.org/wiki/AVL_tree
Note: I was going to do Red/Black trees here, but I think AVL trees are (slightly) easier to explain, so we'll go with them.

May 4 Maps

- <http://www.cs.williams.edu/~bailey/JavaStructures/Welcome.html> , Chapter 15

May 15 Graphs

- <http://www.cs.williams.edu/~bailey/JavaStructures/Welcome.html> , Chapter 16