This schedule is an estimate (version of November 14, 2012). Timing of material and the topics of homework and projects may change as the term progresses. The readings are given as chapters and sections in CLRS, Third Edition.

1. Tues, 23 Oct: Intro, and Lua
   Reading: 1, 2.1–2
3. Fri, 26 Oct: Big-O, Theta, Omega: \( O, \Theta, \Omega \)
   Reading: 3.1
4. Mon, 29 Oct: Hurricane Sandy
5. Tues, 30 Oct: Big-O, Theta examples and properties
6. Thurs, 1 Nov: Graphs and breadth-first search
   Reading: 22.1–2
7. Fri, 2 Nov: Depth-first search
   Reading: 22.3
8. Mon, 5 Nov: DFS applications
   Reading: 22.4–5
   **Test 1:** Rates of Growth
   **Project 1:** Measuring Sorting
9. Tues, 6 Nov: DFS
   Reading: 16.1–2
10. Thurs, 8 Nov: Greedy Algs.
    Reading: 16.3
11. Fri, 9 Nov: Divide and Conquer
    Reading: 2.3, 4.1
    **Test 2:** Graph Traversal
12. Mon, 12 Nov: Mergesort and Quicksort
    Reading: 7
    **Project 2:** Applying graph search
13. Tues, 13 Nov: Priority Queues and Heapsort
    Reading: 6
    Reading: 4.3–5
15. Fri, 16 Nov: Heaps and Huffman Codes
    Reading: 15.1–2

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Project 3: Make a Market (Heaps)

Thanksgiving, 22–23 Nov


Intro, 24.3

Test 3: Greedy, Divide & Conquer Algs.

19. Tues, 27 Nov: Bellman-Ford  Reading: 24.1

20. Thurs, 29 Nov: Minimum Spanning Trees \[1\]  Reading: 23

21. Fri, 30 Nov: Minimum Spanning Trees

Project 4: Divide & Conquer

22. Mon, 3 Dec: All-pairs shortest paths  Reading: 25.1

Test 4: Dynamic Algorithms

23. Tues, 4 Dec: Network Flow  Reading: 26.1

24. Thurs, 6 Dec: Network Flow, 2  Reading: 26.2

25. Fri, 7 Dec: Special Topic: Nondeterministic Algs. and P vs. NP

26. Mon, 10 Dec: Special Topic: Public-Key Crypto

Project 5: Bellman-Ford

27. Tues, 11 Dec: Review

28. Thurs, 13 Dec: Test 5: Cumulative

Homework Assignments. Homework assignments will be due on Wednesday evenings by midnight. Homework 1 is due on 1 November; 2, on 7 November; 3, on 19 November; and 4, on 28 November. Use http://turnin.cs.wpi.edu/

Handwritten homework may be scanned or photographed—if legibly written and photographed in strong light with sharp focus—and then submitted as a zip file of PDFs or JPEGs. You may also use document preparation software.

Projects. Projects are due by the end of the day given, meaning any time before midnight. Use http://turnin.cs.wpi.edu/.

\[1\] Prof. Dougherty will stand in 29–30 November. I’ll be away.