

CSC 70010 – Analysis of Algorithms

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Textbook:

- “Introduction to Algorithms (second edition),” by Cormen, Leiserson, Rivest, and Stein, MIT press.

Other books:

- “Algorithm Design,” by Kleinberg and Tardos, Addison Wesley.
- “Algorithm Design,” by Goodrich and Tamassia, Wiley.
- “Computer Algorithms: Introduction to Design and Analysis (3rd Edition),” by Baase and Van Gelder, Addison Wesley.
- “Algorithms,” by Dasgupta, Papadimitriou, and Vazirani, McGraw Hill.
- “Introduction to Algorithms a Creative Approach,” by Manber, Addison-Wesley.

Online Resources:

- Lecture notes from MIT:
<http://ocw.mit.edu/OcwWeb/Electrical-Engineering-and-Computer-Science/6-046JFall-2005/VideoLectures/index.htm>
- Problems on Algorithms:
<http://www.eng.unt.edu/ian/books/free/poa.pdf>

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Internet: <http://www.sci.brooklyn.cuny.edu/~amotz/700-fall09.html>.

Tentative Syllabus: Analysis of Algorithms, Order Statistics, Sorting, Sorting Networks, Divide and Conquer, Greedy Algorithms, Dynamic Programming, Graphs, Graph Traversals, Minimum spanning Trees, Shortest Paths, NP-Completeness.