Computer Science Department
San Francisco State University
CS 810 Analysis of algorithms II
Fall 2019

Instructor : James Wong
Office : TH 967
Office Hours : Mon & Wed 9:20-10:35, Mon 3:30-4
Email : jwong@sfsu.edu

Prerequisite: A grade of B or better on CSC 510

Class Materials: http://unixlab.sfsu.edu/~jwong/2019/810/ and
https://ilearn.sfsu.edu/ay1920/course/view.php?id=1563

References:

- Foundations of Algorithms, 4th edit., Neapolitan & Namipour, Jones and Bartlett, 2009
- Research Papers.

Grade:

- Quizzes: 60%
- Home Works: 0%
- Class Presentation: 10%
- Class Attendance 5%
- Final Exam: 25%

Topics:

- Review : Data structures, performance analysis, string matching, searching, graph & sorting algorithms
- Design techniques I: divide and conquer, greedy method, dynamic programming
- Design techniques II: backtracking, branch-and-bound
- NP-Complete problems and approximation algorithms
- Parallel algorithms: PRAM, MESH, Routing Messages in a Network
- Scheduling algorithms and other advanced topics