CMPS 3120
Algorithm Analysis

Instructor: Dr. Chengwei Lei
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Course description: Analysis of the performance of algorithms; discussion of programming techniques and data structures used in the writing of effective algorithms.

Text: *Anany Levitin, Introduction to the Design and Analysis of Algorithms 3rd Edition, Pearson, 2011.*

Course material

*THE INSTRUCTOR RESERVES THE RIGHT TO CHANGE THE ORDER AND TIME SPENT ON ANY PORTION OF THIS SYLLABUS

TOPIC	CHAPTER
Introduction	Ch. 1
Fundamentals of the Analysis of Algorithm Efficiency	Ch. 2
Brute Force and Exhaustive Search	Ch. 3
Decrease-and-Conquer	Ch. 4
Divide-and-Conquer	Ch. 5
Transform-and-Conquer	Ch. 6
Space and Time Trade-Offs	Ch. 7
Dynamic Programming	Ch.8
Greedy Technique	Ch. 9
Advanced Topics	Ch.10-Ch.12

Collaboration policy

For homework assignments, you are encouraged to discuss course concepts related to the assignments. However, graded assignments in this course should be completed **individually**.

Semester Mark

Semester Grade	Semester Mark
90 – 100	As
80 – 89	Bs
70 – 79	Cs
60 – 69	Ds
0 - 59	F

Attendance Policy

Students are responsible for their own attendance. The topics covered in lecture will be listed on the course website. Lab attendance is not required but is strongly encouraged.

Semester Grade

Average of Regular Semester Exams	30%	Regular Exams
Homework & Labs	50%	As determined by instructor
Comprehensive Final Exam	20%	Comprehensive Exam

Notes:

1. Each assignment is due at the **specified date at the specified time.** Late submissions will be accepted at a penalty of 20% for each day the assignment is late.

2. There will be three (2) one-hour **in-class** tests and a two-hour comprehensive final exam. No makeup test will be given without compelling justification.

3. For purposes of ABET Accreditation Assessment, the instructor reserves the right to retain copies of any submitted student work.

Classroom Behavior

All cell phones and electronic devices should be in silent mode

No food or drinks are allowed in the classroom

Respect and courtesy to one another are expected at all times