



DAVIS UNIVERSITY

COURSE SYLLABUS
MTH210: INTRODUCTION TO ALGORITHMS
SUMMER QUARTER 2025

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COURSE SYLLABUS FOR: MTH210 INTRODUCTION TO ALGORITHMS

CREDIT HOURS: 5 CREDITS

INSTRUCTOR:

INSTRUCTOR EMAIL:

INSTRUCTOR OFFICE HOURS:

COURSE DESCRIPTION: Topics include the basic definitions of algorithmic; dynamic programming, sorting, searching, and selection; advanced data structures and their applications; graph algorithms and searching techniques such as minimum spanning trees, depth-first search, etc.

PREREQUISITES: Data Structures, Discrete Mathematics

TEXT: *Introduction to Algorithms*, 4rd Edition, MIT Press, ISBN: 9780262046305

LATE WORK POLICY: All students are expected to submit homework assignments electronically on the date specified on the syllabus. No late homework will be accepted and the student will receive a "0" (zero) for the homework assignment. Should the student refuse to complete the assigned work for the class, it could result in the student failing the class. All work assigned is expected to be completed on the date assigned. The instructor reserves the right to alter the schedule as necessary. Please be sure to check your email/Moodle for any changes to the schedule.

PLAGIARISM AND COPYRIGHT INFRINGEMENT POLICY: Work that is found to be plagiarized receives a grade of zero and often causes a student to fail a class. Documentation of plagiarism is added to the student's academic file as a violation of accepted student conduct and is subject to disciplinary action. Plagiarism is the use of another person's exact words, or their ideas written in the student's words without giving the original author credit.

Plagiarism can result from any of the following:

- Quote material directly without using quotation marks.
- Paraphrase the original so that many of the phrases are the same as the original. A good rule is no more than 3 or 4 words in a row should be the same as the original.
- Copy the original sentence pattern, substitution synonyms for key words.
- Neglect to indicate the source of the original material.

ASSESSMENTS:

Content

Homework	30%
Projects	30%
Exams	40%
Total	100%

COURSE GRADE: A = 93%-100%

B = 85%-92%

C = 77%-84%

D = 70%-76%

F = below 70%

TENTATIVE CLASS SCHEDULE:

(Subject to change)

Week	Content Covered	Assignments & Assessment Due
Week 1:	<ul style="list-style-type: none">• Basics of algorithm analysis• Divide-and-Conquer• Quicksort	Homework 1- Friday
Week 2:	<ul style="list-style-type: none">• Medians• Heaps and heapsort• Hash Tables	Homework 2- Friday
Week 3:	<ul style="list-style-type: none">• Binary Search Trees• Red-Black Trees• Greedy Algorithms	Homework 3- Thursday Midterm Exam- Friday
Week 4:	<ul style="list-style-type: none">• Dynamic Programming• Data Structures for Disjoint Sets• Elementary Graph Algorithms	Homework 4- Friday
Week 5:	<ul style="list-style-type: none">• Minimum Spanning Trees• NP-Completeness	Homework 5- Thursday Final Exam- Friday