CS 2040
Algorithms I
3(3-0-1) 60 hours
UT—UofA, Athabasca, UofL

Prerequisites: CS1150, CS 2720 and MA 1130

Instructor: David Gregg
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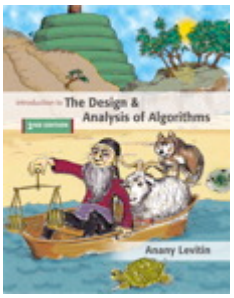
Office Hours: TBA and by prior arranged appointment

Text: Introduction to the Design and Analysis of Algorithms, 2nd ed; Anany V. Levitin; Addison-Wesley;2007



Evaluation:

Assignments	20%
Quizzes (3)	30%
Midterm Exam	20%
Final Exam	30%

Your final grade, calculated as a percentage, is converted to a letter grade as follows:

90 – 100	A+	
85 – 89	A	
80 – 84	A-	
76 – 79	B+	
73 – 75	B	
70 – 72	B-	
67 – 69	C+	
64 – 66	C	
60 – 63	C-	minimum acceptable grade for transfer to the UofA
55 – 59	D+	
50 – 54	D	minimal pass acceptable for GPRC
0 – 49	F	fail

BlackBoard: Your grades and other course information will be posted on BlackBoard: blackboard.gprc.ab.ca

Course Description:

This is the first course of a two course sequence on algorithm design and analysis, with the emphasis on fundamentals such as searching, sorting and graph algorithms.

Topics include algorithm analysis-running time, Big-O, Big-Ω, Big-Θ, recursion, recurrence, induction, brute force algorithms, divide and conquer, space vs. time, dynamic programming, greedy algorithms, and the limitations of algorithm power.

Course Format:

This course is three lecture hours and one lab hour per week.

Lab Materials: CD-R disks ,or memory stick (recommended) are required for the lab

Assignment Policy:

Assignments are due in the scheduled lab on the specified due-date.