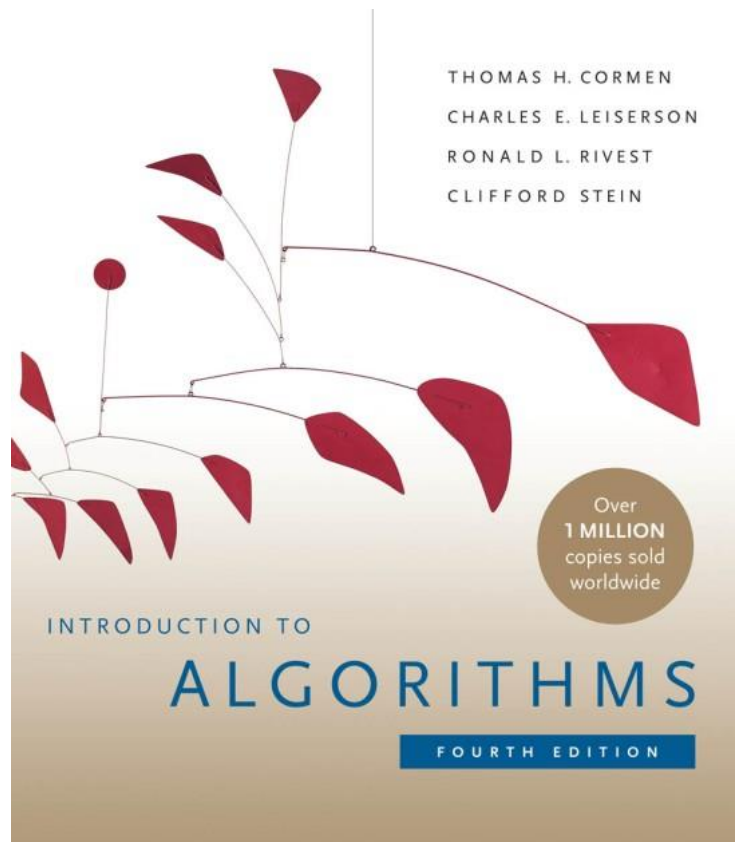


CSCE 423/823

Design and Analysis of Algorithms



(from the book cover)

Fall 2025

Dr. Qiuming Yao



College of Engineering

SCHOOL OF COMPUTING

Tentative Course Schedule (All Information Subject to Change):

Registration schedule: <https://registrar.unl.edu/academic-calendar/>

Course contents: (Class slides define the scope and coverage of the contents, and therefore you may not need to read all sections from book chapters.) H: homework; Q: quiz.

Week	Date	Topic	Textbook Reading	Due Date
Pre-Course	n/a	n/a	n/a	
1: 08/25-08/29	08/25	M1: Intro to algorithm	Chapter 1,2	
	08/27	Intro to algorithm	Chapter 3,4	
	08/29	Intro to algorithm	Chapter 3,4	
2: 09/01-09/05	09/01	No-class, holiday	Chapter 9	
	09/03	M2: Median and order stats	Chapter 9	
	09/05	Median and order stats	Chapter 9	H1 mid-night
3: 09/08-09/12	09/08	Median and order stats		
	09/10	Median and order stats	Chapter 9	
	09/12	Median and order stats	Chapter 9	Q1A mid-night
4: 09/15-09/19	09/15	M3: Elementary graph algorithms	Chapter 20	
	09/17	Elementary graph algorithms	Chapter 20	
	09/19	Elementary graph algorithms	Chapter 20	Q1B mid-night H2 mid-night
5: 09/22-09/26	09/22	Elementary graph algorithms	Chapter 20	
	09/24	Elementary graph algorithms	Chapter 20	
	09/26	M4: Minimum span tree	Chapter 21	Q2A mid-night H3 mid-night
6: 09/29-10/03	09/29	Minimum span tree	Chapter 21	
	10/01	Minimum span tree	Chapter 21	
	10/03	Minimum span tree	Chapter 21	Q2B mid-night H4 mid-night

7: 10/06-10/10	10/06	Review and reflection 1		
	10/08	No-class, reading day		
	10/10	Exam 1	Chapter 22	
8: 10/13-10/17	10/13	M5: Single source shortest paths	Chapter 22	
	10/15	Single source shortest paths	Chapter 22	
	10/17	Single source shortest paths	Chapter 22	Q3A mid-night
9: 10/20-10/24	10/20	No-class, fall break		
	10/22	Single source shortest paths	Chapter 22	
	10/24	M6: All-pairs shortest paths	Chapter 23	Q3B mid-night H5 mid-night
10: 10/27-10/29	10/27	All-pairs shortest paths	Chapter 23	
	10/29	All-pairs shortest paths	Chapter 23	
	10/31	All-pairs shortest paths	Chapter 23	H6 mid-night
11: 11/03-11/07	11/03	Review and reflection 2	Chapter 23	
	11/05	No-class, reading day		
	11/07	Exam 2		
12: 11/10-11/14	11/10	M7: Maximum flow	Chapter 24	
	11/12	Maximum flow	Chapter 24	
	11/14	Maximum flow	Chapter 24	Q4A mid-night
13: 11/17-11/21	11/17	Maximum flow	Chapter 24	
	11/19	M8: NP-completeness	Chapter 34	
	11/21	NP-completeness	Chapter 34	H7 mid-night Q4B mid-night

14: 11/24-11/28	11/24	NP-completeness	Chapter 34	
	11/26	No-class, holiday		
	11/28	No-class, holiday		
15: 12/01-12/05	12/01	M9: Approximation Algorithms	Chapter 35	Q5A mid-night
	12/03	Approximation Algorithms	Chapter 35	
	12/05	Approximation Algorithms	Chapter 35	
16: 12/08-12/12	12/08	Selected topics		Q5B mid-night H8-9 mid-night
	12/10	Course summary		
	12/12	No-class, reading day		
FINAL: 12/15-12/19	TBA	TBA: Exam 3		Exam 4: reflection

* Each homework covers the materials in one module (H8-9 will cover last two modules)

* Quiz A (Q1A-Q5A) is for practicing and pre-evaluation purposes and will not be graded. Quiz B will be graded but provides two attempts. Q1B covers M1 and M2; Q2B covers M3 and M4; Q3B covers M5; Q4B covers M6, M7; Q5B covers M8 and M9.

* Exam 1 (E1): Cover week 1-6 (M1-M4)

* Exam 2 (E2): Cover week 8-11 (M5-M6)

* Exam 3 (E3): Cover week 12-15 (M7-M9)

* Exam 4 (E4): reflection in learning algorithms

* The last quiz and homework should be due before Wednesday of the week 16. (UNL 15th week rule)

Must take and submit (in-class quizzes are not listed in the timetable)

No class (reading day is for students to prepare exams using at least some classroom time).

Gradable Items:

	Team	Make up	% in final grade
--	------	---------	------------------

Homework (8)	Yes.***	Late submission deduction*	30%
Online Quiz at home (5)	No. ***	Late submission deduction**	12%
Mini Quiz in class (15)	No.	Late submission deduction** Questions may change.	18%
Online Exam 1	No.	No.	10%
Online Exam 2	No.	No.	10%
Online Exam 3	No.	No.	10%
Online Exam 4 (self-reflection)	No.	Late submission deduction**	10%

*/**Take home homework and online quiz is subject to 20% deduction from the original grades per 12 hours past the due time. Less than 12 hours is counted as 12 hours.

**In-class quiz or in-class items can be made up later by 20% deduction. Questions may change. The exception is given to those who send message to the instructor for missing class beforehand due to special circumstances.

*** You may discuss with classmates.