

CS3230 - Design and Analysis of Algorithms (DAA) - Course Admin

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Overview

Outline

Modes of Learning

Wrapping-up

About CS3230

Course Objectives:

- ▶ To study algorithms in a formal way
- ▶ To learn different techniques to design efficient algorithms (and to implement those algorithms)
- ▶ To analyze the correctness and the performance of algorithms (and the required analysis techniques)

Learning Outcomes:

- ▶ Design efficient algorithms to solve problems
- ▶ Perform analysis of the asymptotic performance of algorithms
- ▶ Able to prove correctness of designed algorithms
- ▶ Prove/analyze inherent hardness of a problem
- ▶ PS: Able to (prompt GenAI to) implement those algorithms

Modes of Learning - Overview

- ▶ Lectures
- ▶ Tutorials
- ▶ Learning outside classrooms
- ▶ Assignments
- ▶ Tests

For detailed information, please see the course webpage at
<https://www.comp.nus.edu.sg/~stevenha/cs3230.html>

Lectures (2%) and Lecturers

- ▶ 2 hours lecture every week (Fri, 14:00-16:00, at LT11)
 - ▶ Major portion of the lecture will be on presentation
 - ▶ There will be 12 VisuAlgo Online Quizzes of that's week topic (<https://visualgo.net/tests>)
 - ▶ Auto start on Fri, 14:00; Auto close on Fri, 15:59
Only ($\geq 2/3$) attempt worth a free 0.2%
 - ▶ (Virtually) attending any 10 out of 12 gives full 2% (the cap)
 - ▶ Each student is expected to score $\approx [1.8..2.0]\%$ here
- ▶ Lecturers
 - ▶ CHANG Yi-Jun (cyijun@nus.edu.sg)
Consultation hour: Wednesday (10:00-11:00) @ COM3-02-24
 - ▶ Steven HALIM (dcssh@nus.edu.sg)
Consultation hour: Monday (12:00-13:00) @ COM2-03-37
 - ▶ RAHUL Jain (dcsrahul@nus.edu.sg)
Consultation hour: Friday (11:00-12:00) @ COM2-03-53/Discord

Tutorials (3%) and TAs

- ▶ 1 hour tutorial every week (Wed/Thu/Fri, at SR9)
 - ▶ Week 02 (**Early Start**) to Week 13 (total TWELVE sessions)
 - ▶ Only skipping Fri of Week 08 (NUS well-being day)
- ▶ Tutorial group size is $\approx 21/\text{group}$ (from $\approx 19/\text{group}$ last AY)
 - ▶ Up to 3% tutorial participation marks, 1% per 'attempt'
 - ▶ All questions are public (prepare answers before tutorial)
 - ▶ Students (rotated) will be asked to present their answers
 - ▶ Total 12 sessions of about $\approx [4..6]$ questions each
 - ▶ Each student is expected to present $\geq \lfloor \frac{12 \times 5}{21} \rfloor \approx 3$ times
- ▶ There are 21 tutorial groups (3 days, 7 slots each)
 - ▶ Your TA is also your assignment grader
 - ▶ Your TA is your main point of contact in CS3230 (D&C)
 - ▶ The list of TAs can be found at course webpage

Learning outside classrooms

- ▶ Discord
 - ▶ You can go anonymous if you want, but be civil and respectful
 - ▶ Post your questions about CS3230 there
 - ▶ Share your (continuous) feedback and suggestions
- ▶ VisuAlgo
 - ▶ Animations for many (but not yet all) CS3230 topics
 - ▶ In-lecture Online Quizzes (<https://visualgo.net/tests>)
 - ▶ More CS3230-related features will be added over time
- ▶ Textbook(s)
 - ▶ Main Textbook is CLRS22, Introduction to Algorithms (4th edition), by Cormen, Leiserson, Rivest, Stein, 2022
 - ▶ Reference Textbooks are KT06, Algorithm Design, by Kleinberg & Tardos, 2006, and HHE20, Competitive Prog 4, by Halim² and Effendy, 2020
- ▶ Discuss algorithms with GenAI
- ▶ Explore the whole Internet

Assignments $((30 + \epsilon)\%)$

- ▶ There are 5 assignments
- ▶ Two weeks per assignment, from Week 2 to 12
- ▶ We will pick the best 4 out of 5 (approx $(7.5 + \epsilon)\%$ each)
But we **do not** provide deadline extension or make-up
- ▶ Submit softcopy (for those using handwriting, take photo or scan it) solutions in the CS3230 Canvas Assignments sub-page (details later by the first assignment)
- ▶ For some assignments, you may have to do some form of coding to test something, but what you will submit are still in written format (e.g., the proof of correctness of your algorithm, the analysis of your algorithms, and/or the (empirical) experiments results).

Academic Policy (for Assignments)

- ▶ If you are (REALLY) stuck (recommended time limit is 2.5 hours after trying hard), you are encouraged to discuss the assignment questions with your friends, or ask for hints in the Discord or from your TA. You are also allowed to ask GenAI for help, but you should UNDERSTAND and PROCESS the AI's answer before using it.
- ▶ Give any citations for any help you received, esp GenAI help
- ▶ If you are caught for plagiarism (not attributing help, esp GenAI help, AND subsequently not able to explain your submitted answers when (random) spot check is conducted against you), you will be automatically sent to NUS board of discipline (usually resulting in IP grade that takes month(s) to resolve - may delay graduation for Y4/Y5 students)

Summary of Continuous Assessments (30%)

- ▶ 'Free marks': 'attend' 10 of 12 lectures and correctly answer $\geq \frac{2}{3}$ VisuAlgo Online Quizzes (cap at 2%)
- ▶ 'Some work': attempt ≥ 3 Qs (cap at 3%)
- ▶ Do 5 assignments, choose best 4 ($4 \times (7.5 + \epsilon) = (30 + \epsilon)\%$)
- ▶ Notice that the sum is $> 30\%$
- ▶ We cap the CA component at 30%
- ▶ One can still scores 30% from $\approx 25\% + 5\%$
- ▶ In S1 AY 25/26, $\approx \frac{9}{10}$ of the cohort scored full 30% marks
- ▶ TL;DR: With reasonable midterm test and/or final assessment scores (next slide), it is hard to fail this course if you put effort

Tests (70%)

- ▶ 1 Midterm Test (30%)
 - ▶ Date: Sat, 03 Oct 2026 (end of Week 07)
 - ▶ Time: 120 minutes, 2.00-4.00pm SGT
 - ▶ Venue: onsite, F2F, MPSH 5
 - ▶ Make-up test (one session only, on Wed of Week 09, a few days after well-being day, NUSOne time window) is available for midterm, but only for medical or official reasons as per NUS policy (PS: generally harder than the official midterm)
- ▶ 1 Final Assessment (40%)
 - ▶ Date: Thu, 26 Nov 2026
 - ▶ Time: 9.00-11.30am (2.5 hours)
 - ▶ Venue: onsite, F2F, TBC
 - ▶ No make-up session

Both midterm and final are written tests (pen/pencil and paper)
No electronics (no calculators, no smartwatch, etc), **no GenAI...**

Question 1 at VisuAlgo Online Quiz

Declare Your First Lecture (e-)Attendance

- ▶ Go to <https://visualgo.net/tests> (you need to login)
FAQ: If you forgot your password,
<https://visualgo.net/password/reset> it
(use your e0123456@u.nus.edu)
- ▶ Start “CS3230 S1 AY26/27 L1 Quiz”
- ▶ Answer the first question (an MCQ):
“When is the midterm test date of CS3230 S1 AY26/27?”
FAQ: You need to get this (and two other MCQs) correct!
Do NOT submit yet until you go through lec01b.
- ▶ Keep the session open, there are a few more questions
- ▶ Click “Submit Quiz” nearing the end of this first lecture
But you can do so now if you know the answer of all questions