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

Y. Chen   S. Jain   W. Suksompong

School of Computing
National University of Singapore

CS3230 Lec01a; Thu. 15 Jan 2026

Overview

About CS3230

Course Objectives:

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

About CS3230

Course Objectives:

- ▶ To study algorithms in a <u>formal</u> way
- ▶ To learn different techniques to <u>design efficient</u> algorithms (and to implement those algorithms)
- ▶ To analyze the <u>correctness</u> and the <u>performance</u> 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 implement those algorithms

Modes of Learning - Overview

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

Lectures and Lecturers

- 2 hours lecture every week (Thu, 14:00-16:00, at LT11)
  (Tentative schedule on Canvas)

Lectures and Lecturers

- ▶ 2 hours lecture every week (Thu, 14:00-16:00, at LT11)
  (Tentative schedule on Canvas)
- ▶ Lecturers
  - ▶ Chen Yu (yu.chen@nus.edu.sg)
    Consultation hour: Wednesday (16:00-17:00) @ COM2-02-58
    (just appear, open door policy).
  - ▶ Sanjay Jain (sanjayjain@nus.edu.sg)
    Consultation hour: Thursday (10:00-11:00) @ COM2-03-59
    (just appear, open door policy). You can always try to check if
    he is in office at other times or set up an appointment.
  - ▶ Warut Suksompong (dcswaru@nus.edu.sg)
    Consultation hour: Friday (09:00-10:00) @ COM2-03-35 (just
    appear, open door policy)
- ▶ Use Discord (https://discord.gg/B3NXXtQ7PQ) for questions
  about course, and not email as many students would have
  similar questions, and others can respond.

Tutorials and TAs

- 1 hour tutorial every week (Various Tutorial Gps on Mon/Tue)
  - Start in Week 02

Tutorials and TAs

- 1 hour tutorial every week (Various Tutorial Gps on Mon/Tue)
  - Start in Week 02
  - Tutorial attendance and presentation marks (5%)
  - Reasonable attempt for answering (full correctness is not needed for tutorial marks).
  - Prepare answers before tutorial
  - Students (rotated) will be asked to present their answers
  - Most tutorials will have four to six questions

Tutorials and TAs

- 1 hour tutorial every week (Various Tutorial Gps on Mon/Tue)
  - Start in Week 02
  - Tutorial attendance and presentation marks (5%)
  - Reasonable attempt for answering (full correctness is not needed for tutorial marks).
  - Prepare answers before tutorial
  - Students (rotated) will be asked to present their answers
  - Most tutorials will have four to six questions
- There are 20 tutorial groups
  - Your TA is also your assignment grader
  - Your TA is your main point of contact in CS3230
  - The list of TAs can be found on Canvas
    `https://canvas.nus.edu.sg/courses/85457/pages/teaching-staff?module_item_id=656384`

Learning outside classrooms

- Discord
  - https://discord.gg/B3NXXtQ7PQ
  - You can go anonymous if you want, but be civil and respectful
  - Post your questions about CS3230 there. It is only for CS3230 related issues. We will try to answer as soon as possible
  - Share your (continuous) feedback and suggestions

Learning outside classrooms

- Discord
  - https://discord.gg/B3NXXtQ7PQ
  - You can go anonymous if you want, but be civil and respectful
  - Post your questions about CS3230 there. It is only for CS3230 related issues. We will try to answer as soon as possible
  - Share your (continuous) feedback and suggestions
- VisuAlgo
  - https://visualgo.net/en
  - Animations for many (but not yet all) CS3230 topics

Learning outside classrooms

- Discord
    - https://discord.gg/B3NXXtQ7PQ
    - You can go anonymous if you want, but be civil and respectful
    - Post your questions about CS3230 there. It is only for CS3230 related issues. We will try to answer as soon as possible
    - Share your (continuous) feedback and suggestions
- VisuAlgo
    - https://visualgo.net/en
    - Animations for many (but not yet all) CS3230 topics
- Textbook(s)
    - Main Textbook is CLRS22, Introduction to Algorithms (4th edition), by Cormen, Leiserson, Rivest, Stein, 2022

Learning outside classrooms

- Discord
  - https://discord.gg/B3NXXtQ7PQ
  - You can go anonymous if you want, but be civil and respectful
  - Post your questions about CS3230 there. It is only for CS3230 related issues. We will try to answer as soon as possible
  - Share your (continuous) feedback and suggestions
- VisuAlgo
  - https://visualgo.net/en
  - Animations for many (but not yet all) CS3230 topics
- Textbook(s)
  - Main Textbook is CLRS22, Introduction to Algorithms (4th edition), by Cormen, Leiserson, Rivest, Stein, 2022
- The whole internet

Assessments

- Midterm (F2F; open book): Worth 30%
- Final Exam (F2F; open book): Worth 40%.
- Tutorials: Total worth 5%
  - Tutorial attendance, where 1 mark is awarded for each session attended, and participation in two tutorials, worth 5 marks each, are collectively capped at 20 marks, and scaled to 5% of your overall grade.
  - Valid reasons, e.g., Medical Certificate (MC), are accepted. Submit appropriate documentation via https://forms.office.com/r/AjQWkRAJjp
- Ten Assignments (one every week except midterm and last week). Total worth 25%
  - Your best seven assignments (56 marks total) are capped at 50 marks and scaled to 25% of your overall grade.
  - Submit scanned handwritten or typed solutions to Canvas (more details in the first assignment).
  - No deadline extensions, attendance exceptions, or make-up sessions will be provided, even with a MC.

Bonus Marks for Lecture Attendance

- ▶ Though there will be recordings of the lecture, quality is not guaranteed. Also, it is much better for learning by attending the lecture in person, rather than by going through the recordings. Therefore, we strongly encourage everyone to attend the lecture in person.
- ▶ Lecture Attendance: Bonus worth 2%
- ▶ Each lecture, scan the QR code for attendance. You need to scan it during the lecture.
- ▶ The QR code will be flashed around the middle of the lecture for a few minutes. Non-scanning during this period and complaints later will not be entertained.
- ▶ Up to 10 Lectures, each worth 0.2%

Academic Policy (for Assessments)

- Do your work YOURSELF (any copying from your co-students or usage of Internet or AI tools is not allowed).
- WRITE YOUR OWN ANSWERS
- If you are (REALLY) stuck, post high-level questions on Discord (not answers), ask your TAs (there are several TAs), and then ask lecturers (only 3 of us)
- Discussion of high-level approach with fellow students is OK, but any detailed discussion is not allowed.
- Give any citations for any help you received
- Do NOT copy/compare answers!
  If you are caught for plagiarism, NUS policies will apply
- Please do not post assignment questions and put your solution/code in public repositories, e.g., do NOT post anything on stackoverflow, your own public GitHub repo, etc.

Summary of Continuous Assessments (30%)

- 'Free marks': <u>attend</u> the tutorials and provide reasonable attempt for answering the questions.
- Do the Assignments, <u>choose best 7</u> (4×7 capped at 25%)

NUS | Computing

Summary of Continuous Assessments (30%)

- 'Free marks': <u>attend</u> the tutorials and provide reasonable attempt for answering the questions.
- Do the Assignments, <u>choose best 7</u> (4×7 capped at 25%)
- It is <u>hard to fail this course</u> if you put enough effort. However, to get good grade, you need to put lots of effort.

Tests (70%)

- 1 Midterm Test (30%)
  - Date: Thu, 12 Mar 2026
  - Time: 14:00 – 15:40
    At venue: 14:00, Exam starts: ∼14:10, Duration: 80 minutes.
  - Venue: MPSH 1A and 1B
  - Make-up test (one session only) is available for midterm, but only for medical or official reasons as per NUS policy

Tests (70%)

- 1 Midterm Test (30%)
  - Date: Thu, 12 Mar 2026
  - Time: 14:00 – 15:40
    At venue: 14:00, Exam starts: ∼14:10, Duration: 80 minutes.
  - Venue: MPSH 1A and 1B
  - Make-up test (one session only) is available for midterm, but only for medical or official reasons as per NUS policy

- 1 Final Assessment (40%)
  - Date: Mon, 30 Apr 2026
  - Time: 09:00–11:00 (Exam starts at 09:00. You need to be at venue earlier based on Registrar office guidelines)
  - Venue: To be announced by Registrar
  - No make-up session

Both midterm and final are written tests (pen/pencil and paper).
F2F, open book. No calculators or electronic devices allowed. You should bring 2B pencil for filling in bubbles for MCQ and Student number. Also bring scratch paper, in case you need it. **NUS** | Computing

Q&A

We hope that you will enjoy this course