

CS 240 – Data Structures and Data Management

Module 0: Administrivia

Arne Storjohann

Based on lecture notes by many previous cs240 instructors

David R. Cheriton School of Computer Science, University of Waterloo

Fall 2024

References: [Course web page](#)

What is this course about?

“*merge-sort* is a recursive algorithm that solves the Sorting Problem in $O(n \log n)$ worst-case time”

- These terms should all be familiar to you.
(But we will review them briefly, and review ‘ O ’ in-depth.)
- This statement should be familiar from CS136/CS145.
- Predecessor courses: Solve problems somehow, don’t care much about run-time.
- This course: Want to be *efficient*.
 - ▶ Also: more problems, more algorithms, more data structures, more ways to analyze algorithms.
 - ▶ Focus on how to store data and how to manipulate it.
 - ▶ Strong emphasis on theoretical arguments, proofs.

Course Information

- Instructors
 - ▶ Arne Storjohann
astorjoh [at] uwaterloo.ca
- Lectures (Tuesday, Thursday)
 - ▶ 001 8:30 – 9:50 in MC 2035
 - ▶ 002 1:00 – 2:20 in RCH 112
- Office hours, phone numbers etc.
 - ▶ See web page

Course Information

Instructional Support

- Coordinator: Karen Anderson (MC 4010)
kaanders [at] uwaterloo.ca
 - ▶ Main contact for paperwork (VIF, SDA, etc.)
- Assistant: Jialin (Sherlock) Yang
cs240 [at] uwaterloo.ca
 - ▶ Main contact for questions, piazza, tutorials
- Office hours: See webpage

Tutorials (Fridays):

- Schedule → web page
- Multiple tutorials cover same material
- Tutorial 0 will cover some \LaTeX (for Assignment 0) and be delivered via videos on LEARN.
- First in-person tutorial (on Module 01 topics) on Sep 13

Assignment 0 to learn \LaTeX (6 bonus marks on assignment 1)

Course Information

- Course Webpage

<http://www.student.cs.uwaterloo.ca/~cs240/>

Primary source for up-to-date information for CS 240.

- ▶ Lecture slides / Course notes (basically a textbook)
- ▶ Assignments / Solution Sketches
- ▶ Course policies

- Main resource: Lectures

- ▶ Course slides will be available on the webpage.

- Course notes available in protected area of web page

- ▶ Chapter X roughly corresponds to Module X
- ▶ Watermarked; do not share the files
- ▶ More books on the webpage under Resources

Other relevant textbooks listed on the webpage under Resources

Electronic Communication in CS240

Piazza

<https://piazza.com/uwaterloo.ca/fall2024/cs240>

- A forum that is optimized for asking questions and giving answers.
- You must sign up using your uwaterloo email address.
 - ▶ You can post to piazza using a nickname though
- Posting (full or partial) solutions to assignments is forbidden.

What to read how often?

- piazza is the main place for announcements. Read it daily.
- Web page updates occasionally (modules/chapters/assignments).
Check every few days or when you need the material.

Email

cs240@uwaterloo.ca

- For private communication between students and course staff.
- You should be sending email from your uwaterloo email address.

Mark Breakdown

- Final 45%
- Midterm 24%
 - ▶ Thursday, Oct 10, 4:30 – 6:20pm

} Note: You must pass the *weighted average* of the midterm and the final exam to pass the course

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- Midterm 24%
 - ▶ Thursday, Oct 10, 4:30 – 6:20pm
- Assignments 25%
 - ▶ 5 assignments each worth 5% each, approximately every 2 weeks
 - ▶ See web page for details of assignment submission (currently MarkUS but might be Crowdmark)
File size limited to 5MB.
 - ▶ Due on Tuesdays at 5:00pm
No lates allowed (documented illness → credit transferred)
 - ▶ Follow the *assignment guidelines*
(<https://www.student.cs.uwaterloo.ca/~cs240/f24/guidelines.pdf>)
Marks may be deducted for hard-to-read solutions.

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- Programming Questions 6%
 - ▶ 2 programming questions each worth 3% each
 - ▶ All programming questions to be submitted electronically via Marmoset

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Cheating

- Cheating includes not only copying the work of another person (or letting another student copy your work), but also excessive collaboration.
- Do **not** take notes during discussions with classmates.
- Standard penalties: a grade of 0 on the assignment you cheated on, and a deduction of 5% from your course grade. You will also be reported to the Associate Dean of Undergraduate Studies.
- Academic Integrity Declaration
 - ▶ Must be signed and submitted by student (twice in the term)
 - ▶ Not signed? → no credit for those assignments

- **Cardinal rule:** *Do nothing that keeps your neighbour from learning.*
- Please silence cell phones before coming to class.
- Questions are encouraged, but please refrain from talking in class.
(What is unclear to you and your neighbour probably is unclear for others as well!)
- Avoid using laptops and other gadgets in class except for taking notes.

Advice

Attend all the lectures and pay attention!

Study the slides before the lectures, and again afterwards.

Read the reference materials to get different perspectives on the course material.

Keep up with the course material! Don't fall behind.

If you're having difficulties with the course, seek help.