CS 240e – Data Structures and Data Management

Module 0E: Administrivia — Enriched

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Based on lecture notes by many previous cs240 instructors

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What is this course about?

"MergeSort 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.
  (The regular section will give more detailed reviews.)
- This statement should be familiar from CS136/CS145.
- This course: more problems, more algorithms and data structures, more ways to analyze algorithms.

What is the enriched section about?

- Cover everything of cs240r, but faster:
  - Omit most of the review, some near-trivial proofs. (Lecture notes have in-depth reviews.)
  - Go faster over material that is likely known (heapsort, quicksort, hashing).
- To enrich: More depth and more breadth.
  - Do some proofs deemed too complicated for cs240r.
  - Do more problems/algorithms/ways to analyze.
- Enrichment material is mostly theoretical:
  - More and harder proofs.
  - More attention to details of proofs.
  - Not much difference in difficulty of programming.
- IMPORTANT! Course is aimed at students in 2B or later:
  - Need CS245, STAT230 a lot, CS241, CS246 a bit
  - Not official pre-requisites because enriched is offered rarely
  - Be ready to learn relevant parts quickly on your own.

Course Information

- Course Webpage

  `http://www.student.cs.uwaterloo.ca/~cs240e/`

  Primary source for up-to-date information for CS 240.
  - Course policies and info
  - Announcements
  - Lecture slides—incomplete coverage
  - Assignments / Solution Sketches
  - Tutorial questions / Solution Sketches

- LEARN
  - Course notes ($\sim$ textbook)—complete coverage
    - ★ Still under development, some errors possible
  - Online teaching material (videos), if required.

- Piazza: `https://piazza.com/uwaterloo.ca/Winter2023/cs240e`
  - A forum that is optimized for asking questions and giving answers.
  - Posting solutions to assignments is considered cheating.
    - ★ Use email for questions about (partial) solutions.

Course Information

- Instructor: A. Jamshidpey, `armin.jamshidpey [at] uwaterloo.ca`
- Assistant (ISA): Tom Iagovet, `cs240e [at] uwaterloo.ca`
  - Main contact for questions, piazza, tutorials
    - ★ Tutorial: Monday 11:30-12:20, MC4063 (recommended, not required)
    - ★ Tutorial-questons on web-page beforehand
    - ★ First tutorial: Mon. Jan 16
- Numerous other ISAs, IAs or TAs (for regular section or grading only)
- Coordinator (ISC): Karen Anderson `kaanders [at] uwaterloo.ca`
  - Main contact for paperwork

Office hours: Some in-person, some on-line; see web page for schedules.

Email: For private communication between students and course staff.

- Send email from your uwaterloo email address

Mark Breakdown (Part 1 of 2)

- Final Exam
  - date period: TBA
- Midterm Exam
  - date period: TBA

} Note: You must pass the *weighted average* of exams to pass the course

- 9 assignments: 5 written, 4 programming
  - You must pass the weighted average of assignments to pass the course.
  - Due on Wednesdays at 5:00pm
    No lates allowed (documented illness $\rightarrow$ credit transferred)
  - Follow the *assignment guidelines*
    (`https://www.student.cs.uwaterloo.ca/~cs240e/w23/guidelines.pdf`)
    Marks may be deducted for hard-to-read solutions.
  - Assignment 0 to learn LaTeX (6 bonus marks on assignment 1)

Mark Breakdown (Part 2 of 2)

5 written assignments	35% (7% each)
2 programming questions	6% (3% each)
Midterm	19%
Final	40%

Warning and advice

Cheating:

- 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.

- 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. Wait until at least 30 minutes after before writing or typing
- Do *not* look for answers to assignment questions in library or on Web.

Advice:

- Don't fall behind! Read course notes (ideally before class).
- Pay attention! Don't multi-task.
- Seek help! Don't wait too long before asking.