

Lecture 0: Course Overview

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May 6, 2024

Overview

- Logistics
 - Structure of Lectures
 - Homework & (NO) Exams & Scribing
 - Final Project
 - Student drop-in hours
 - Rocketchat

Structure of lectures

- Each lecture will be 1h 20min long
- We will have *two* lectures per week (Mon/Wed)
 - We will only have 21 lectures, as I am saving time for final presentations
 - Should we have some weeks with 3 lectures?

Advantages:

- 1 more time and more exposure to all of the course's topics before you choose your project
- 2 more time to think about your final project

Disadvantages:

- 1 more work for us in the beginning

Purpose of Lectures and Homework

The purpose of a story is not to hold your attention, but to put you back doing your work, inner and outer.

A story is not for presenting some explicit meaning, and it is not for anyone's entertainment.

- Shams of Tabriz (Soul fury, poem 4)

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The purpose of a lecture is not to exhaustively explain the entirety of a
concept,

but to give you a basic understanding of the material
and instigate your own exploration, of the material and of yourself.

The purpose of homework isn't to automatically repeat what was taught,
but for you to go a bit further in your understanding and (meta-) skills.

Homework

We will have 4 sets of homework for this class.

See *assignments* section in <https://cs.uwaterloo.ca/~r5olivei/courses/2024-spring-cs860/homework/>.

Due dates (tentative):

- May 24th
- June 14th
- July 12th
- July 30th

Each homework will have n questions, where $n \sim 5$.

These questions will be intended for you to get a good grasp of the material.

Please list sources used and collaborators.

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I will *try to* post practice problems (won't be graded/don't turn in) which are selected so that you can get a better understanding of the material. I am a strong believer that we only *learn by doing*.

Homework Submissions

- We will use crowdmark for homework submissions
- We strongly recommend you to write your solutions in LaTeX.
- If you are handwritting your solution, please:
 - 1 Write in a *clearly legible* manner
 - 2 Take a very good picture of your solution (one where we can clearly read and understand what you wrote)
 - 3 Illegible solutions will be given a *zero* mark

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 - 1 Write in a *clearly legible* manner
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 - 3 Illegible solutions will be given a *zero* mark
- Solutions will be posted within 5 days after the homework is due.
- I will do our best to grade your homework within *14 days after submission*
- Late submissions will be dealt with as follows: each late day will have a penalty of 25% on your total grade for that homework.

Exams

- There will be NO exams in this class
- Instead of an exam, I will ask you to scribe at least one lecture so that everyone can have access to this course's notes

Sign up on rocketchat by clicking this link:

<https://rocketchat-courses.cs.uwaterloo.ca/home>

- please send me a message on rocketchat so that I can add you to the course channel
- once we are all there, I will make a thread where you can sign up for the class that you want to scribe

Final Project

<https://cs.uwaterloo.ca/~r5olivei/courses/2024-spring-cs860/final-project/>

- Topic of your choice (see page above for suggestions)
I must approve the topic though!
- You can work in groups of at most 2 people.
- Goal: work on an open problem and/or present a survey on a problem or area of your choice within algebraic complexity and its connections to other areas.
- To turn in (*undergrads only*): project report (at most 10 pages - use LaTeX template provided)
- Each group (now *everyone*) will be required to do a 20 min presentation on their project, and then there will be a 5 min period for questions (by the audience)

Student drop-in hours

TBD

Rocketchat Policy

- We strongly encourage everyone to interact a lot on Rocketchat

Sign up by clicking this link:

<https://rocketchat-courses.cs.uwaterloo.ca/home>

- Whenever you have a question about the material or the HW, please ask them in the course channel (as chances are other students also have same question).
- I will do my best to promptly answer lecture-related questions on rocketchat
- Please **do not expect** me to be active on rocketchat at late/early hours (say from 8pm until 9am)
- **Do not expect** anyone to answer rocketchat questions *over the weekend*.

Questions?