

# CS 2312: Discrete Structures II

Prof. Vishesh Patel

Prof. Kasia Hitczenko

## Introduction

# Course Information

- **Lectures:** Tuesdays and Thursdays: 4:45 - 6:00 pm in SEH 1300/1400/1450
- **Discussion Sections (Labs)**
  - Beginning August 26th (attendance required, attend one you registered for, with exceptions for conflicts)
    - Lab 1 meets Monday: 12:45 - 2 PM EST in SEH 1450
    - Lab 2 meets Wednesday: 9:00 - 10:15 AM EST in SEH 1450
    - Lab 3 meets Friday: 9:00 - 10:15 AM EST in SEH 1450
- **Piazza for Questions:** <https://piazza.com/gwu/fall2024/csci2312>
- **Gradescope:** Homework Submission, Grading, etc.
- **Course Website:** <https://gw-cs2312.github.io/>



# Course Content

- **Prerequisites:** CS 1311 (Discrete Structures I) and Math 1231/1221
- **Required Textbooks:** Susanna Epp, "Discrete Mathematics with Applications"
  - Corresponding sections to lecture content
  - Other textbooks may be referred to in which case PDFs will be posted
- CS 1311 but "on steroids", depth, not breadth
  - Review material from CS 1311 and then expand
- Non-comprehensive list: Asymptotics, Timing, Graphs, etc.



# Instructors

- **Vishesh Patel**

- Graduated from University of Pennsylvania (B.S and M.S.E)
- Interest in Algorithms and Randomization (PhD?)
- Largely software background (Finance and Technology)

- **Kasia Hitczenko**

- Undergraduate degree from Yale; Graduate degree from University of Maryland
- Studies Natural Language Processing



# Course Schedule

- **2 Lecture Cadence**
- **Schedule will be continually updated at** <https://gw-cs2312.github.io/>

Date	Topic	Reading	Assignments	Instructor
Thurs Aug 22	Introduction and Proof Techniques	Epp: 1.1, 2.1-2.3		Patel
Lab Aug 26/28/30	Incorrect proofs			TAs
Tues Aug 27	Proof Techniques II			Patel
Thurs Aug 29	Divisibility	Epp: 4.1, 4.2, 4.4		Hitczenko
Lab Sept 2/4/6	NO LAB THIS WEEK (LABOR DAY)			
Tues Sept 3	Divisibility		HW1 due before class	Hitczenko



# TA Staff

## - Graduate Teaching Assistants:

- **Gehna Ahuja**  
Email: [gehna.ahuja@gwmail.gwu.edu](mailto:gehna.ahuja@gwmail.gwu.edu)  
Office Hours: TBD
- **Suvasree Biswas**  
Email: [suvasree@email.gwu.edu](mailto:suvasree@email.gwu.edu)  
Office Hours: TBD

## Learning Assistants:

- **Lennart Martens**  
Email: [lennart@gwu.edu](mailto:lennart@gwu.edu)  
Lab: Lab 1  
Office Hours: Friday: 4 PM - 6 PM
- **Joshua Kweon**  
Email: [joshkweon7@gwu.edu](mailto:joshkweon7@gwu.edu)  
Lab: Lab 2  
Office Hours: Wednesday: 4 PM - 6PM
- **Thomas Gillespie**  
Email: [tgillespie@gwu.edu](mailto:tgillespie@gwu.edu)  
Lab: Lab 3  
Office Hours: TBD



# Grading

- **Approximate Grading**

- 5%: Participation (Lectures, Labs, Office Hours, Piazza)
- 15%: Midterm #1
- 15%: Midterm #2
- 30%: Final
- 35%: Homework

- *Disclaimer:* This is a challenging course, especially to those who are seeing the content for the first time. If you try hard to understand the material, put in the effort/time, and illustrate that you are doing so, you will be *fine*.



# Roadmap to Success

1. **Come to Class** (preferably wanting to learn and participate)
2. **“Recreate the Class” to a friend** (don't memorize the lecture, but the narrative)
3. **Go to Lab Sections** (try to understand how to do problems)
4. **Read the Corresponding Textbook Sections** (just additional context and different viewpoint)
5. **Do the Homework On Your Own** (at least try the problems by yourself before talking about them with your collaboration partner)
6. **Writeup the Homework Solutions On Your Own** (you don't have a choice with this one, if you don't.....)
7. **Office Hours** (if you're stuck on a homework problem, or a concept, or just want to chat)





# Collaboration Policy

- For homeworks, you are allowed to discuss homework problems with **1** other person and this should be noted at the top of every homework submission
- But, you should write your solution to the HWs **independently**
- Under **no circumstances** may you look at another student's HWs, or look for HW answers anywhere other than in the text and in the notes and handouts provided in class or links provided on the course website.
- Don't give out hints or answers on Piazza
- Academic Integrity + AI