

Welcome

to

CSE 331

Let's do some introductions



TAs first



Robert



Nitya



Jessica



Justin



Monica



Alex



Snigdha



Michael



Harishvar



Connor



Megan



Joseph



Winnie



Mihir



Elijah



Jakir



Bekir



Yang

Lectures will be recorded



About Me

A. Erdem Sariyuçe

erdem@buffalo.edu

Office: ~~323 Davis~~ over Zoom

Office hours: Mon 5:00-6:00pm; Wed, 1:30-2:30pm

OH starts today (Waiting room enabled)

Contact us all at



Or use piazza!

cse-331-staff@buffalo.edu

TAs will not respond to individual emails (except for re-grading requests)

Handouts for today

Syllabus (online)

Homework Policy document (online)

Homework 0 (online)

One Stop Shop for the Course

CSE 331

Syllabus

Plazza

Schedule

Homeworks -

Autolab

Video Project

Support Pages -

Sample Exams -

CSE 331

Spring 2021

<https://cse.buffalo.edu/~erdem/cse331/spring21/index.html>

331

Today ◀ ▶ January 2021 ▼

Print Week Month Agenda ▼

Sun	Mon	Tue	Wed	Thu	Fri	Sat
27	28	29	30	31	Jan 1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31	Feb 1	2	3	4	5	6
10:20am 331 Recitation 3pm CSE 331 Lecture +2 more	12:45pm CSE331: Recita	3pm CSE 331 Lecture 5:20pm CSE331: Recitat		3pm CSE 331 Lecture		

Events shown in time zone: Eastern Time - New York

Google Calendar

Homework 0 (Optional)

CSE 331 Syllabus Piazza Schedule **Homeworks** Autolab Video Project Support Pages Sample Exams

HW 0
Allowed Sources
Homework Policies

Homework 0

Due by **8:00am, Monday, February 8, 2021.**

Make sure you follow all the [homework policies](#).

All submissions should be done via [Autolab](#)

Check the [week 1 recitation notes](#) for this homework.

The [support page for matrix vector multiplication](#) could be very useful for this homework.

Submitting HW 0 is optional. However, we do encourage you to submit to get familiar with [Autolab](#) and to get some feedback.

Due: next Monday 8am

What is a proof?

The goal of this question is to present a gentle start to proofs. In particular, the idea is to highlight a common mistake students make while writing proofs.

The Problem

Consider the following "proof":

- [Brad Pitt](#) has a beard:



- Every goat has a beard:



Three things to remember


WORK HARD!

DO NOT CHEAT!

READ CAREFULLY!

Wait.. What???

Make sure you follow submission instructions



Two most common ways
of losing points

Make sure you read problem statements carefully

Academic Dishonesty

All your submissions must be your own work

Penalty:

Minimum: A **grade reduction in course**

Possible: **F** (or higher penalty) if warranted

YOUR responsibility to know what is cheating, plagiarism etc.

If not sure, come talk to me

Excuses like “I have a job,” “This was OK earlier/in my country,” “This course is hard,” etc. **WON’ T WORK**

**I DO NOT HAVE ANY PATIENCE WITH ANY CHEATING :
YOU WILL GET A GRADE REDUCTION IN THE COURSE
FOR YOUR FIRST MISTAKE**

Read the syllabus and hw policy CAREFULLY!

Syllabus Quiz


No graded material will be handed back till you pass the syllabus quiz!


Options

[View handin history](#)

[View writeup](#)

[Download handout](#)

 Due: February 28th 2021, 3:47 pm

 Last day to handin: February 28th 2021, 5:47 pm

Academic Integrity

Question 1: Sharing my answers to this syllabus quiz with other 331 students

- Is OK if I do it to help out a friend
- It does not matter since there is no grade attached with it
- Is an academic integrity violation and should not be done
- Is an academic integrity violation but I can take the chance

Question 2: Penalty for academic violation in CSE 331 is an automatic

- Warning and a chance to make-up
- A zero in the assignment AND a letter grade reduction (for first violation across all CSE courses) and an F in the course (for 2nd violation across all CSE courses)
- A zero in the corresponding assignment and nothing else
- Expulsion from UB

More information on the syllabus quiz

CSE 331 Syllabus

Algorithms and Complexity

Spring 2021

Time and location: **Mondays, Wednesdays** and **Fridays**, at **3:00-3:50pm**, over **Zoom**

Please note

It is **your responsibility** to make sure you read and understand the contents of this syllabus. If you have any questions, please contact the instructor.

Acknowledgment

Once you have read the syllabus carefully, please fill in the Syllabus quiz on [Autolab](#). As an incentive for you to fill in this form, **you will not receive any feedback on your assignments till you successfully answer AT LEAST 18 out of the 21 questions in the quiz.** (You can attempt the quiz as many times as you want.) Note that in addition to this syllabus, the quiz will also ask questions based on the [homework policies](#).

Autolab

AUTOLAB

You need to sign in or sign up before continuing.

Autolab Homepage

SIGN IN WITH MYUB

<https://autograder.cse.buffalo.edu/>

Autolab FAQ

CSE 331 Syllabus Piazza Schedule Homeworks ▾ Autolab Mini Project ▾ Support Pages ▾ Youtube channel

Autolab

Details on Autolab, which will be used for all homework submissions in CSE 331.

The main link

We will be using the UB CSE extension to [Autolab](#) for submission and (auto)grading of CSE 331 homeworks. You can access Autolab via <https://autograder.cse.buffalo.edu/>

Signing up

Follow these steps to setup an account on Autolab (unless you already have one in which case you'll use your existing account):

1. Go to [this page](#) and click on the [Sign in with MyUB link](#). A new account will automatically be created for you.
2. By default, AutoLab will use your official UB first and last name. **If you have a different preferred name, please let us know ASAP.**
3. We will have leader boards for all the programming assignments. For anonymity, all students are identified by their chosen nicknames. So please make sure you pick an appropriate one (you can change your nickname at any point of time).
4. After you have done the above steps, you wait.

What happens next

You can submit the following now

Assignments

Homework 0

Q1 part (a) [Number of perfect matchings]

Q1 part (b)

Q3 (Structured Matrix Vector Multiplication)

Quizzes

Syllabus Quiz

If you were registered by 11pm on Friday, Jan 30; you should be on Autolab (newcomers can let me know by private posts at Piazza)

Grading break-down

Grading Policy

Here is the split of grades:

Course Component	% of grade
Video Project	5%
Homeworks	36%
Quizzes	5%
Exams	54%

Pre-requisites

Required (officially)

CSE 250, [CSE 191 or MTH 311] and MTH 142

At least a C-

Required (for practical purposes)

Comfort with proofs

Willingness to work hard!

Support pages: <https://cse.buffalo.edu/~erdem/cse331/support/background.html>

Accessibility Resources

Information included in the syllabus

In short, let me know and consult with Accessibility Resources

Preferred Name

If you prefer using name diff from UB records

Let me know and we'll make a note of it.

Critical Campus Resources

Sexual Violence

UB is committed to providing a safe learning environment free of all forms of discrimination and sexual harassment, including sexual assault, domestic and dating violence and stalking. If you have experienced gender-based violence (intimate partner violence, attempted or completed sexual assault, harassment, coercion, stalking, etc.), UB has resources to help. This includes academic accommodations, health and counseling services, housing accommodations, helping with legal protective orders, and assistance with reporting the incident to police or other UB officials if you so choose. Please contact UB's Title IX Coordinator at ☎ 716-645-2266 for more information. For confidential assistance, you may also contact a Crisis Services Campus Advocate at ☎ 716-796-4399.

Mental Health

As a student you may experience a range of issues that can cause barriers to learning or reduce your ability to participate in daily activities. These might include strained relationships, anxiety, high levels of stress, alcohol/drug problems, feeling down, health concerns, or unwanted sexual experiences. Counseling, Health Services, and Health Promotion are here to help with these or other issues you may experience. You can learn more about these programs and services by contacting:

Counseling Services

- 120 Richmond Quad (North Campus), ☎ 716-645-2720
- 202 Michael Hall (South Campus), ☎ 716-829-5800

Health Services

Michael Hall (South Campus), ☎ 716-829-3316

Health Promotion

114 Student Union (North Campus), ☎ 716-645-2837

TA Office hours

Starts next week!

Will cover pretty much all the weekdays!

Recitations

Are on for this week!



Please stick to **your** recitation section

So that Zoom sessions can be more interactive.

You can change (via MyUB) if there is a space.

Exams

Mid term (two parts)

Wed, **Mar 17** and Fri, **Mar 19**, 2021.

Live exams, during the class time.

MARK YOUR CALENDAR!

Final exam

Wed, **May 12**, 2021.

Live exam, **3:30-6:00pm (not 3 hrs)**

MARK YOUR CALENDAR!

HWs

[50 pts] Q1 (easier) is a proof-based question; two parts

[25 pts] Q2 (harder) is a proof-based question; two parts

[25 pts] Q3 is a programming question; autograded

HWs due by 8:00pm on Fridays

(assigned a week before)

NO LATE SUBMISSIONS!!!

Support page

CSE 331 Care Package

Starting Fall 2019, CSE 331 will be assuming more background material was covered in CSE 250 (and CSE 191). In particular, starting Spring 2020, CSE 331 will assume a non-trivial coverage of proofs and other related material in CSE 191 and CSE 250. While we make this transition, this page collect materials that were covered in previous incarnations of CSE 331 but will no longer be covered going forward (this also includes material that are not covered in CSE 191/250). We hope that this page is helpful if you took the older version of CSE 191/250 or you took the equivalent courses in another school.

The Topics

Below we collect the topics that we will no longer cover in CSE 331 (but were covered as late as Fall 17 or Fall 18):

- [Asymptotic Notation](#)
- [Trees](#)
- [Topological Ordering](#)
- [Minimizing Maximum Lateness](#)

C++ vs Java/Python

Use Java/Python if you are just as comfortable with as C++

Use a VM with g++ installed for Ubuntu

We recommend that you install a VM that runs `g++` on Ubuntu. In particular, we recommend that you use [Jaric Zola's](#) VM system that he created for his CSE 250 course [link](#). If you have questions on Jaric's setup, please do **NOT** contact him: email cse-331-staff@buffalo.edu instead.

If you still prefer using your own system, we would still recommend that you test your code in the VM system above before submitting to Autolab.

This course: how to solve problems!

