

Queens College, CUNY
CSCI 220 - Discrete Structure
Spring 2022

INSTRUCTOR INFORMATION

Instructor: Xinying W Chyn

Email: xinying.chyn@qc.cuny.edu

Course Sections:

CSCI 220-11: Tuesday and Thursday 10:45 am - 12:00 pm

CSCI 220-22: Tuesday and Thursday 12:15 pm - 1:30 pm

Location: Science Building C205

Instructor Office Hours:

Friday 9:00 AM - 11:00 AM via ZOOM **OR** by appointment

Course Description: This course serves as an introduction to Discrete Mathematics. We will study (and hopefully learn) a variety of fundamental ideas most all of which will form a basis for further courses and work in Computer Science (and Mathematics as well as all the other Sciences).

Required book, tools, and accounts:

❖ **zyBook**, join code: **CUNYCSCI220-620ChynSpring2022**

*****Instruction*****

★ Sign in or create an account at learn.zybooks.com

★ Enter zyBook code: **CUNYCSCI220-620ChynSpring2022**

★ Subscribe

○ A subscription is \$58. The **cutoff to subscribe** is **May 14, 2022**.

Subscriptions will last until June 12, 2022.

❖ **Discrete Mathematics and its Application** by Rosen, 7th/8th edition.

❖ **Blackboard**, Make sure you can log in to Blackboard. If you cannot, please contact the Help Desk at 718-997-4444. Please familiarize yourself with how Blackboard works.

❖ **ZOOM** for class meetings and office hours.

*****Meeting Link*****

Queens College Zoom Credential:

Click "sign-in" [here](#) to access your Queens College Zoom Account using your CUNY login in credentials. Login requires your CUNY Login credentials

(Firstname.LastnameNN@login.cuny.edu, where "NN" is the last 2+ digits of your CUNY EMPLID).

Lectures: (in case we switch to hybrid, or you cannot come to campus)

Link: <https://us02web.zoom.us/j/86817221339?pwd=KzVUVDNvdUwwMjc4cGN6ZlQrdExLdz09>

Meeting ID: **868 1722 1339**

Passcode: **SP22CS220**

Office Hours:

Link: <https://us02web.zoom.us/j/82743824493>

Meeting ID: **827 4382 4493**

Grade Components:

15 % zyBook Assignments*

25 % Exam 1

25 % Exam 2

35 % Final

* If you don't get the zyBook, then your grade will be calculated as the following :

30 % Exam 1, 30 % Exam 2, and 40 % Final.

Course Outline/Topics:

- Number Theory [Chapter 4]
 - Divisibility and Modular Arithmetic [4.1]
 - Integer Representations [4.2]
 - Primes and Greatest Common Divisors [4.3]
 - Solving Congruences [4.4]
 - Applications of Congruences [4.5]
- Mathematical Induction [5.1 - 5.2]
- Growth of function [3.2]

(Exam 1: Tuesday, March 8, 2022)

- Counting [Chapter 6]
 - The Basics of Counting [6.1]
 - The Pigeonhole Principle [6.2]
 - Permutations and Combinations [6.3]
 - Binomial Coefficients and Identities [6.4]
- Discrete Probability [Chapter 7]
 - An Introduction to Discrete Probability [7.1]
 - Probability Theory [7.2]
 - Bayes' Theorem [7.3]
 - Expected Value and Variance [7.4]

(Exam 2: Thursday, April 7, 2022)

- Graphs [Chapter 10]
 - Graphs and Graphs Models [10.1]
 - Graph Terminology and Special Types of Graphs [10.2]
 - Representing Graphs and Graph Isomorphism [10.3]
 - Connectivity [10.4]
 - Euler and Hamilton Paths [10.5]
 - Shortest-Path Problems [10.6]
- Trees [Chapter 11]
 - Introduction to Trees [11.1]
 - Tree Traversal [11.3]

(Final Exam: TBA)

Important Date:

Tuesday, February 8	No Classes - Classes follow a Friday schedule
Tuesday, March 8	Exam 1
Thursday, April 7	Exam 2
Tuesday, April 19	No Classes - Spring Recess
Thursday, April 21	No Classes - Spring Recess
Tuesday, May 17	Last day to withdraw with a grade of W
TBA	Final

About zyBook:

- There is a subscription fee of \$58. The **cutoff to subscribe** is **May 14, 2022**.
- zyBook is not mandatory. However, completing the zyBook assignment will count up to 15% of your grade. Otherwise, your grade will solely be based on exam performance.
- The zyBook assignment is **due May 18, 2022**. There is **NO EXTENSION**. Be sure to start the assignment ahead of time to ensure full completion. Do not wait until the last minute.
- **There is no other (extra credit) assignment besides zyBook.**

About Announcement:

- All major class announcements will be made in lectures, it might be posted on Blackboard in the announcement section. **You are responsible for all class announcements made in lectures and posted to Blackboard - whether or not you are in attendance for the lecture.**
- Bulk email messages will be rare. You might get an email notification for blackboard announcement.
- If there is any question, DO NOT REPLY on the email you get the announcement notification. Sent your email to xinying.chyn@qc.cuny.edu.

- ★ The email addresses I will use for you are the ones on Blackboard. Make sure your Blackboard email address is updated. You can update the address you have listed on Blackboard by clicking on 'Update Email' in the 'Tools' section of your homepage; do not confuse this with the Tools section on the course page. The Tools section for updating your email is on the main page where all your courses appear. If you are unsure which email is listed, under the same 'Tools' section on your homepage, click on 'Personal Information' then 'Edit Personal Information'.
Also, you should check and update your CUNYFirst email address.

About Office Hours:

- I will come to class a little early to answer some of your questions.
- The office hour will be via ZOOM on Friday from 9:00 to 11:00 AM.
- If the giving office hour time doesn't work for you, you can also email me for questions or schedule an office hour.
- Office Hour link is provided in the Zoom information section listed at the beginning of this syllabus. My Office Hour Zoom link has a waiting room. You will need to wait if I am with another student.

About Lectures, Recordings, and Attendance:

- Attending the class is **strongly suggested** - but not required or demanded. The exam will be heavily based on the lecture material.
- When you come to class, you must properly follow QC and proper guidelines for vaccinations and masking. Masks must be worn correctly: over your mouth and nose, not under your nose.
- Attendance won't affect your grade. However, **you must attend at least one of the first five in-person lectures**. Otherwise, you will get a WN grade and be withdrawn from the course. The WN grade might affect your financial aid and/or visa status. Once you have been withdrawn from the class, I cannot enroll you back and the grade cannot be changed. If you cannot attend the first five classes with legitimate reason normally medical related, you need to email me the documentation before February 16, 2022.
- If you miss a class, you are responsible for any material and announcements given.
- For students who cannot come to campus/classes for medical reason, you can join the class via ZOOM. The link is provided at the beginning of the syllabus. Check the "Required book, tools, and accounts" section for details on how to join the meeting.
- The lecture recording is not guaranteed. If it's recorded, everyone participated in classroom or online need to be aware of the following agreement.
- *"Students who participate in this class with their camera on or use a profile image are agreeing to have their video or image recorded solely for the purpose of creating a record for students enrolled in the class to refer to, including those enrolled students who are unable to attend live. If you are unwilling to consent to have your profile or video image recorded, be sure to keep your camera off and do not use a profile image. Likewise, students who un-mute during class and participate orally are agreeing to have their voices recorded. If you are not willing to consent to have your voice recorded during class, you will need to keep your mute button activated and communicate exclusively using the "chat" feature, which allows students to type questions and comments live."*
-- CUNY and the office of the Provost

About Exams and Curve:

- The exam dates are listed in the "Important Dates" section.
- All exams will be in-person, unless Queens College requires that our class goes back to an online format.
- There are **no online alternatives to in-person exams**, and **I do not give makeups** and do not entertain requests to take exams at an earlier or later date. Please do not ask for special treatment. **This policy is not negotiable.**
- During exams, you are not permitted to leave the exam room until after your examination paper has been turned in. If you leave, you will not be allowed to return to work on the exam. If you have to use the bathroom, go before class.
- Exam 1 will cover up to growth of function and exam 2 will cover counting and probability. **Final exams will be cumulative.**

- If you miss or skip an exam, your grade on that exam will be calculated as 0. If you missed the final, you would get a WU for the course. Following Queens College and CUNY policy, grades of WU will not be converted to F or INC. A grade of Incomplete will only be given in cases where it applies per QC/CUNY policy.
- In the case of good, sufficient, and unforeseen reasons that you need to miss an exam, you need to provide the documentation **before** the exam.
- For all exams, you must provide a Queens College ID with your picture or some other Government ID; you will not be allowed to take the exam if you do not. Your picture on the ID must match both your enrollment information and your appearance.
- There are **NO curve on the exams and NO extra credit assignments/projects**.
- The grade distribution will be weighted so that **the class median will be B-**.
- If we receive notification from the provost's office to revert to the online setting. Your exams will be on Blackboard, and all free response questions will need to be answered via text box. No handwritten work or email submissions. And you will need to show yourselves on camera taking exams through ZOOM. There will be randomly selected students who will have an individual oral component to answer some exam related questions (explaining part of your work). If you do not reply to a scheduling request or are unwilling to work with me and schedule a personal oral section, your exam grade will be counted as 0.
- Course grades are only based upon performance and not on any other issues including, but not limited to, financial aid, visa status and personal issues. I do not change grades - with the exception of a gross error on my part in their calculation. Please don't ask. Your grade is based only upon the knowledge and understanding of the class material that you demonstrate. I do not change WU grades to F in order to accommodate F1 visa concerns, etc. Don't ask for 'favors'.

About Cheating:

Cheating in any form will not be accepted and will be dealt with harshly in accordance with college policy. If you cheat on the exam, you will get 0 on the exam. You will also be reported to the Computer Science Department and the Office of Judicial Affairs. I take cheating very seriously and report all incidents of suspected cheating. Investigations may lead to (temporary) PEN grades.

About Emailing:

- You need to send the email **from your school email**, like gmail. Also, please indicate which class and section you are in. Otherwise, your email might not be answered. Make sure you send it to the correct email: xinying.chyn@qc.cuny.edu
- Please do not email me questions regarding grades or curves. These types of emails will go unanswered. Please ask questions regarding course material during class or office hours.
- Emails will be answered typically within 48 hours, except during weekends and/or holidays. If your email goes unanswered, please ensure that you've followed the above guidelines.

About Campus Access and Covid Exposure:

- If you have any question regarding accessing the campus, please check the qc "Campus Access" [site](#).
- If you have any question regarding Covid Exposure, please check the qc "In Case of Possible COVID Exposure" [site](#) or contact Coronavirus Campus Coordinator and Coronavirus Campus Liaison.
 - William Graffeo - Coronavirus Campus Coordinator
Contact: William.Graffeo@qc.cuny.edu | (718) 997-2881
 - Parmanand Panday -- Coronavirus Campus Liaison
Contact: Parmanand.Panday@qc.cuny.edu | (718) 997-4171

Special Services:

If you have a letter or statement from the Office of Special Services that you are allowed some special allowance or accommodation for exams, please provide me such or notify me of such allowance *before February 10, 2022*.

Students with Disabilities:

If you are registered with the [Office of Special Services for Students with Disabilities \(OSS\)](#), please feel free to make an appointment with the course instructor to discuss any academic accommodations you may need. It is best if this is done at the beginning of the semester. If you need academic accommodations and are not registered with the OSS, please contact them by telephone at 718-997-5895 or by email at QC.SPSV@qc.cuny.edu.

By accepting this syllabus, you agree to the rules described here and understand the content and terms. None of the policies in this syllabus are negotiable. If you have any issues, questions, or concerns, contact me during the first week of the semester. I reserve the right to make minor changes to this syllabus and any such changes will be announced in class.