

Math 2001: Introduction to Discrete Math
Section 003
Spring 2021

Class meetings: MWF 12:40 p.m. - 1:30 p.m remotely via ZOOM

Instructor:

Dr. Judith Packer
MATH 227
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<http://math.colorado.edu/~packer/21math2001.html> and on Canvas

Office hours: MWF, 11:00 a.m. - 12:00 p.m., or by appointment

Prerequisites: Math 1300 (Calculus I), or the equivalent

Text: *Mathematics: A Discrete Introduction*, E. Scheinerman, 3rd edition. To keep the cost of your course materials as low as possible and access to those materials as convenient as possible, we have collaborated with the CU Book Store and the publisher to deliver those materials through a program called “Day 1 Digital Access”, which will appear on your tuition and fee bill as “Day 1 Digital Access. You will receive access to all your course materials, digitally, on the first day of classes, through the course Canvas page. You will see a “Day 1 Digital Access” charge on your tuition and fee bill for: \$37.94. You have the option to opt out. This means: you won’t pay for anything, but you lose all access to the online course materials. You can opt out by using a link in a reminder email you will receive with the subject heading “Day 1 Digital Access”. **You must opt out no later than February 4th, otherwise you will be charged for the materials.**

Course outline: The primary aim of this course is to introduce the ideas of rigor and proof in mathematics through the study of topics in discrete mathematics. Topics will include the nature of mathematics (definitions, theorems, proofs, and counterexamples), basic logic, lists and sets, counting and relations, permutations and symmetry, some basic number theory and cryptography, and graph theory.

Grading: Grades will be based on two midterm exams held during class-time (20% each), weekly homework assignments consisting mostly of problems from the text (20%), two written projects (5% each), participation in weekly “breakout room” activities and worksheets (5%), and a comprehensive final exam (25%). Both midterm exams and the final exam will be proctored by the exam proctoring software **Proctorio** and submitted via Canvas. You will also need to have Proctorio installed on your Chrome browser. You can access the Chrome extension at getproctorio.com. To gain access to the exam you will be required to have a working microphone and webcam.

Test and exam dates:

Test 1: Wednesday, Feb. 24, 2021, 12:40 p.m.- 1:40 p.m.

Test 2: Friday April 2, 2021, 12:40 p.m.- 1:40 p.m.

FINAL EXAM: Monday May 3, 2021, 1:30 p.m. - 4 p.m.

THERE WILL BE NO MAKE-UP EXAMS, so make sure now that you have no conflicts!

All tests and exams will be administered on Canvas using Proctorio software. You will need Proctorio software to take these exams.

Homework, writing assignments and in-class activities: There will be three types of assignments and in-class activities:

- Weekly assignments consisting of problems from the text and other sources; these assignments will focus on learning the mathematical content of the course. You will usually have a week to do these problems, which will cover material studied that previous week. Homework solutions will be due uploaded to Canvas by 11:59 p.m. on the due date. Because of the holiday Monday January 18, 2021 (MLK Day) and the scheduled “wellness days” with no classes on Wednesday February 17, 2021 and Thursday March 25, 2021, the days of the week that the homework is due will vary through the semester. Some, but not all, of these problems will be graded. **Handing in solutions to assigned homework that have been copied from Chegg.com or any other homework-solution-providing website is a violation of the Honor Code, and violations will be reported to the Honor Council.**
- There will be two additional written projects, which will focus on the communication of mathematics.
- Every week we will also have some sort of activity or worksheet done in small group breakout rooms, which are essential to your learning process, and count towards your grade.

You are encouraged to work together on homework, although each student must submit an individual write-up. **Late homework will not be accepted**, but the two lowest scores of your regular homework assignments will be dropped.

“Spring Pause:”

The week of March 22-26 will mainly be used in this class as a “spring pause” to provide us all with a safe and supportive way to promote health, wellness and learning without leaving campus. During this week, although we will have one assignment due on Monday March 22 based on the previous week’s material, there will not be any exams or other homework assignments due. We will still have classes, some with interactive class activities that will require your attendance and be part of your final course grade. Attendance is still strongly recommended for all class sessions that week, except for the campus-wide wellness day on Thursday, March 25. All of us wish we could have a regular spring break, but public-health concerns have outweighed the desire for a spring break. CU Boulder leaders would like to emphasize that, as always, it is important for all to behave responsibly during this time. CU Boulder leaders have indicated that faculty and students should not use the week to travel or engage in risky behavior that could result in further COVID-19 outbreaks on campus.

Friendly advice:

- **Attend class.** Things will often be said in class that are not covered in the text, and participating in classroom discussions is an important part of the learning process.
- **Read the book.** The text is intended to be read *in addition to* classroom lectures, and it contains many more details and examples than are possible to cover in lectures.
- **Do the homework.** Not only does it count for a significant portion of your grade, but this is one of the best ways to study and learn.
- **Come to my ZOOM office hours.** I am happy to help you with the homework, or discuss anything we’ve done in class.

Other Important Dates:

- **February 1, 2021 (Monday):** Last day to drop a course without Tuition/Fee charges and without a “W” appearing on your transcript.
- **March 24, 2021 (Wednesday):** Last day to drop a course via MyCUInfo; Last day for students to make arrangements with their instructor if they have three or more final exams on the same day or two final exams scheduled to meet at the same time.
- **April 29, 2021 (Thursday):** Last day of classes, and last day to withdraw from the semester.

Accommodations for disabilities: If you qualify for accommodations because of a disability, please submit your accommodation letter from Disability Services to your faculty member in a timely manner so that your needs can be addressed. Disability Services determines accommodations based on documented disabilities in the academic environment. Information on requesting accommodations is located on the Disability Services website,

<http://disabilityservices.colorado.edu/> .

Contact Disability Services at 303-492-8671 or dsinfo@colorado.edu for further assistance. If you have a temporary medical condition, see Temporary Medical Conditions at

<https://www.colorado.edu/disabilityservices/students/temporary-medical-conditions> on the Disability Services website.

Religious holidays: Campus policy regarding religious observances requires that faculty make every effort to deal reasonably and fairly with all students who, because of religious obligations, have conflicts with scheduled exams, assignments or required attendance. In this class, assignments will either be rescheduled or dropped from grading calculations depending on the nature of the conflict. If you have a conflict, please advise me as soon as possible so that arrangements can be made. See full details at <https://www.colorado.edu/policies/observance-religious-holidays-absences-classes-or-exams>

Miscellaneous University Rules & Regulations:

- **Honor Code:** All students enrolled in a University of Colorado Boulder course are responsible for knowing and adhering to the Honor Code. Violations of the policy may include: plagiarism, cheating, fabrication, lying, bribery, threat, unauthorized access to academic materials, clicker fraud, submitting the same or similar work in more than one course without permission from all course instructors involved, and aiding academic dishonesty. All incidents of academic misconduct will be reported to the Honor Code (honor@colorado.edu); 303-492-5550). Students found responsible for violating the academic integrity policy will be subject to nonacademic sanctions from the Honor Code as well as academic sanctions from the faculty member. Additional information regarding the Honor Code academic integrity policy can be found at the Honor Code Office website at <https://www.colorado.edu/sccr/honor-code> .

- **Classroom behavior policy:**

Both students and faculty are responsible for maintaining an appropriate learning environment in all instructional settings, whether in person, remote or online. Those who fail to adhere to such behavioral standards may be subject to discipline. Professional courtesy and sensitivity are especially important with respect to individuals and topics dealing with race, color, national origin, sex, pregnancy, age, disability, creed, religion, sexual orientation, gender identity, gender expression, veteran status, political affiliation or political philosophy. For more information, see the policies on classroom behavior at <http://www.colorado.edu/policies/classbehavior.html> and on the Student Code of Conduct at the website <https://www.colorado.edu/sccr/> .

- **Preferred Student Names and Pronouns:**

CU Boulder recognizes that students' legal information doesn't always align with how they identify. Students may update their preferred names and pronouns via the student portal; those preferred names and pronouns are listed on instructors' class rosters. In the absence of such updates, the name that appears on the class roster is the student's legal name.

- **Requirements for COVID-19**

As a matter of public health and safety due to the pandemic, all members of the CU Boulder community and all visitors to campus must follow university, department and building requirements, and public health orders in place to reduce the risk of spreading infectious disease. Required safety measures at CU Boulder relevant to the classroom setting include:

1. maintain 6-foot distancing when possible,
2. wear a face covering in public indoor spaces and outdoors while on campus consistent with state and county health orders,
3. clean local work area,
4. practice hand hygiene,
5. follow public health orders, and
6. if sick and you live off campus, do not come onto campus (unless instructed by a CU Healthcare professional), or if you live on-campus, please alert CU Boulder Medical Services.

Students who fail to adhere to these requirements will be asked to leave class, and students who do not leave class when asked or who refuse to comply with these requirements will be referred to Student Conduct and Conflict Resolution. For more information, see the policies on COVID-19 Health and Safety and classroom behavior and the Student Code of Conduct. If you require accommodation because a disability prevents you from fulfilling these safety measures, please see the Accommodation for Disabilities statement on this syllabus. Before returning to campus, all students must complete the COVID-19 Student Health and Expectations Course. Before coming on to campus each day, all students are required to complete a Daily Health Form.

Students who have tested positive for COVID-19, have symptoms of COVID-19, or have had close contact with someone who has tested positive for or had symptoms of COVID-19 must stay home and complete the Health Questionnaire and Illness Reporting Form remotely. Because this class is taught remotely, if you are quarantined, you can still attend the class using Zoom. If you become ill, please inform me in private, and we will work out the next steps together.

Once a student discloses to me that they have tested positive for COVID-19 or are having symptoms of COVID-19 or have had close contact with someone who has tested positive for COVID-19, I will submit that information to the Medical Services Public Health Office for the purposes of contact tracing (contacttracing@colorado.edu and/or 303-492-2937), as required by CU Health policies and procedures.

- **Statement on Discrimination and Harrassment:**

The University of Colorado Boulder (CU Boulder) is committed to fostering an inclusive and welcoming learning, working, and living environment. CU Boulder will not tolerate acts of sexual misconduct (harassment, exploitation, and assault), intimate partner violence (dating or domestic violence), stalking, or protected-class discrimination or harassment by members of our community. Individuals who believe they have been subject to misconduct or retaliatory actions for reporting a concern should contact the Office of Institutional Equity and Compliance (OIEC) at 303-492-2127 or cureport@colorado.edu. Information about the OIEC, university policies, anonymous reporting, and the campus resources can be found on the OIEC website,

<http://www.colorado.edu/odece/>

Please know that faculty and instructors have a responsibility to inform OIEC when made aware of incidents of sexual misconduct, dating and domestic violence, stalking, discrimination, harassment and/or related retaliation, to ensure that individuals impacted receive information about options for reporting and support resources.