

Math 2001: Introduction to Discrete Math
Section 002
Spring 2015

Class meetings: MWF 100:00-10:50 p.m. in MUEN 131

Instructor:

Dr. Judith Packer
MATH 227
492-6979
packer@colorado.edu
<http://spot.colorado.edu/~packer/15math2001.html>

Office hours: MWF, 12:00 p.m. - 1:00 p.m., or by appointment

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

Text: *Mathematics: A Discrete Introduction*, E. Scheinerman, 3rd edition

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 in-class tests (20% each), weekly homework assignments consisting mostly of problems from the text (20%), three written projects (15%), and a comprehensive final exam (25%).

Homework: There will be two types of homework assignments:

- Weekly assignments consisting mostly of problems from the text; these assignments will focus on learning the mathematical content of the course. They will generally be due on Wednesdays, and will cover material studied the previous week.
- Three additional written projects, which will focus on the communication of mathematics.

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 lowest grade of your regular homework assignments will be dropped.

Test and exam dates:

Test 1: Friday, February 20, 2015 in class;

Test 2: Wednesday, April 1, 2015 in class (no fooling!);

FINAL EXAM: Sunday, May 3, 2015, 7:30 p.m. – 10:00 p.m. (note the night-time hour!).

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

Friendly advice:

- **Come to 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. The textbook was chosen partly because it is relatively easy to read. Take advantage of this.
- **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 office hours.** I am happy to help you with the homework (though I won't tell you how to do the problems), or discuss anything we've done in class.
- **Hang in there!** Proofs are hard for everyone when they start. It may take a long time for you to see how a proof is done, or you may feel like you're just not getting it, while everyone else is. This is not true. We all feel like this at times in mathematics, no matter how long we've been doing it. Talk to other students about what's going on. When it clicks for you, it'll be worth it.

Other important Dates:

- **January 28 (Wed.):** Last day to drop a course without Tuition/Fee charges and without a "W" appearing on your transcript.
- **March 20 (Fri.):** 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
- **May 1 (Fri.):** Last day for students to withdraw from the university for Spring semester. All withdrawals are assessed 100% of tuition and fees (\$0 refund) and W grades are posted to transcripts.

Accommodations for disabilities: If you qualify for accommodations because of a disability, please submit to me a letter from Disability Services in a timely manner (for exam accommodations provide your letter at least one week prior to the exam) so that your needs can be addressed. Disability Services determines accommodations based on documented disabilities. Contact Disability Services at 303-492-8671 or by e-mail at dsinfo@colorado.edu.

If you have a temporary medical condition or injury, see Temporary Injuries under Quick Links at Disability Services website (<http://disabilityservices.colorado.edu/>) and discuss your needs with your professor.

Religious observances: 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 http://www.colorado.edu/policies/fac_relig.html

Miscellaneous University Rules & Regulations:

- **Honor Code:** All students of the University of Colorado at Boulder are responsible for knowing and adhering to the academic integrity policy of this institution. Violations of this policy may include: cheating, plagiarism, aid of academic dishonesty, fabrication, lying, bribery, and threatening behavior. All incidents of academic misconduct shall be reported to the Honor Code Council (honor@colorado.edu; 303-725-2273). Students who are found to be in violation of the academic integrity policy will be subject to both academic sanctions from the faculty member and non-academic sanctions (including but not limited to university probation, suspension, or expulsion). Additional information on the Honor Code can be found at <http://www.colorado.edu/policies/honor.html>
<http://www.colorado.edu/academics/honorcode/>
- **Classroom behavior policy:** Students and faculty each have responsibility for maintaining an appropriate learning environment. 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 differences of race, culture, religion, politics, sexual orientation, gender, gender variance, and nationalities. Class rosters are provided to the instructor with the student's legal name. I will gladly honor your request to address you by an alternate name or gender pronoun. Please advise me of this preference early in the semester so that I may make appropriate changes to my records. See policies at <http://www.colorado.edu/policies/classbehavior.html>
http://www.colorado.edu/studentaffairs/judicialaffairs/code.html#student_code
- **Statement on Discrimination and Harrassment:** The University of Colorado Boulder (CU-Boulder) is committed to maintaining a positive learning, working, and living environment. The University of Colorado does not discriminate on the basis of race, color, national origin, sex, age, disability, creed, religion, sexual orientation, or veteran status in admission and access to, and treatment and employment in, its educational programs and activities. (Regent Law, Article 10, amended 11/8/2001). CU-Boulder will not tolerate acts of discrimination or harassment based upon Protected Classes or related retaliation against or by any employee or student. For purposes of this CU-Boulder policy, "Protected Classes" refers to race, color, national origin, sex, pregnancy, age, disability, creed, religion, sexual orientation, gender identity, gender expression, or veteran status. Individuals who believe they have been discriminated against should contact the Office of Discrimination and Harassment (ODH) at 303-492-2127 or the Office of Student Conduct (OSC) at 303-492-5550. Information about the ODH, the above referenced policies, and the campus resources available to assist individuals regarding discrimination or harassment can be obtained at <http://hr.colorado.edu/dh/>