

Math 2200 – Mathematical Reasoning & Proof

Lecture Time: 12:00pm – 1:50pm (MW) Location: Knudson Hall 207

Textbook: Bond and Keane, An Introduction to Abstract Mathematics

Instructor: Mei Yin mei.yin@du.edu

Office and Office Hours: Zoom, 10:30am –12:00pm (TR), or by appointment

TA:

Office and Office Hours:

Lecture Schedule: Here is a plan of the course (may be altered for pedagogical reasons as the course develops).

Ch. 1: Mathematical Reasoning	2 weeks
Ch. 2: Sets	1.5 weeks
Ch. 3: Functions	1.5 weeks
Ch. 4: Binary Operations and Relations	1.5 weeks
Ch. 5: The Integers	3.5 weeks

Course Description: Topics of study will include an introduction to theory of sets, relations and functions, logic, truth tables and propositional calculus, proof techniques, and combinatorial techniques.

Tentative Calendar:

The Week Of	Material Covered
March 31 --- April 4	Introduction, 1.1, 1.2
April 7 --- April 11	1.3, 1.4

April 14 --- April 18	2.1, 2.2
April 21 --- April 25	2.3, 3.1
April 28 --- May 2	3.2, 3.3
May 5 --- May 9	4.1, 4.2
May 12 --- May 16	4.2, 5.1
May 19 --- May 23	5.2, 5.3
May 27 --- May 30	5.4, 5.5
June 2 --- June 6	5.6, Review

Grading: Your final grade for the course will be determined based on a numerical weighted average calculated as follows: **Attendance/Participation 20% Homework 10% Quizzes 40% Final Exam 30%**. This average percentage will then be converted into a final letter grade based partially on how other students perform this quarter, and partially on typical percentage grades from previous quarters of the course.

Students are expected to **attend and actively participate** in every scheduled class.

Homework will be assigned about once a week and is for students' review and practice. Homework will be collected on Mondays at the beginning of the class, with most problems marked for completion only.

Your main assessment for the course will be short weekly **quizzes**, to be taken during class time each Wednesday. Ideally, each quiz will be 20-25 minutes long and consist of 3 questions at an easy-to-medium level of difficulty. The quizzes are essentially just checks to make sure that you are keeping up and that you know what is going on in the course (since you could be working with others on your homework assignments). Quizzes will be open note and open book.

There will be a cumulative **final exam** on Monday, June 9, 12-1:50pm.

Help: **Additional handouts will be distributed throughout the quarter.** Students are also encouraged to ask for individualized help from the instructor at any time.

Students with Disabilities: If you qualify for academic accommodations because of a disability or medical issue, please submit a faculty letter to me from Disability Services Program (DSP) in a timely manner so that your needs may be addressed. DSP determines accommodations based on documented disabilities/medical issues. DSP is located in Driscoll Center South, Garden Level, Suite 22, 2050 E. Evans Ave., Denver, CO, 303-871-3241. Information is also available online at <http://studentaffairs.du.edu/disability-services-program>; see the [Handbook for Students with Disabilities](#).

Honor Code: Follow the [Honor Code](#) in all activities related to this course. Incidents of academic misconduct will be reported to and investigated by the [Office of Student Conduct](#).

Inclusive Learning Environment: In this class, we will work together to develop a learning community that is inclusive and respectful. Our diversity may be reflected by differences in race, culture, age, religion, sexual orientation, socioeconomic background, and myriad other social identities and life experiences. The goal of inclusiveness, in a diverse community, encourages and appreciates expressions of different ideas, opinions, and beliefs, so that conversations and interactions that could potentially be divisive turn instead into opportunities for intellectual and personal enrichment.

A dedication to inclusiveness requires respecting what others say, their right to say it, and the thoughtful consideration of others' communication. Both speaking up and listening are valuable tools for further thoughtful, enlightening dialogue. Respecting one another's individual differences is critical in transforming a collection of diverse individuals into an inclusive, collaborative and excellent learning community. Our core commitment shapes our core expectation for behavior inside and outside of the classroom.

Religious Accommodations: University policy grants students excused absences from class or other organized activities for observance of religious

holy days, unless the accommodation would create an undue hardship. Faculty are asked to be responsive to requests when students contact them **in advance** to request such an excused absence. Students are responsible for completing assignments given during their absence, but should be given an opportunity to make up work missed because of religious observance. Once a student has registered for a class, the student is expected to examine the course syllabus for potential conflicts with holy days and to notify the instructor by the end of the first week of classes of any conflicts that may require an absence (including any required additional preparation/travel time). The student is also expected to remind the faculty member in advance of the missed class, and to make arrangements in advance (with the faculty member) to make up any missed work or in-class material within a reasonable amount of time.

Other: Check the **DU academic calendar** for important dates throughout the quarter: <http://www.du.edu/registrar/calendar/index.html>.