

MATH 11200/20, Studies in Mathematics, Autumn 2016

Instructor: Alan (Chang)

Email: ac@math.uchicago.edu (For course questions, use Piazza! See below.)

Office: Eckhart 16

Office hours (tentative): Tues/Thurs 10:30–11:30am, and by appointment

Please come visit me in office hours to talk about homework problems and course material!

Lecture: MWF 9:30–10:20am. Eckhart 207

Tutorial: Tutorials meet for the first time on Thursday, September 29. There is only one section.

Section 20T1: TuTh 9:00–10:20am, Harper 135. Junior tutor: Fernando Al Assal

Course resource:

Diane Herrmann and Paul Sally. *Number, Shape, and Symmetry*. (Chapters 1–8.)

You can borrow this textbook for the whole quarter from the Center for College Student Success (<https://ccss.uchicago.edu/>).

Eckhart library has two copies of this book. They are available for two-hour loans.

Course description:

From the registrar: “MATH 11200 addresses number theory, including a study of the rules of arithmetic, integral domains, primes and divisibility, congruences, and modular arithmetic.”

Grading:

Homework	20%
Classwork/Quizzes/Participation	20%
Midterm	15%
Final Presentation	15%
Final Exam	30%

Special dates:

Midterm	Wednesday, November 2
Final Presentations	Last 1–2 days of class
Final Exam	Friday, December 9, 10:30am–12:30pm

Course website/Piazza:

We will be using Piazza (piazza.com) for class discussion. Please create an account on the website and add yourself to our class. The system is highly catered to getting you help fast and efficiently from classmates, the junior tutors, and myself. Rather than emailing questions to me, I encourage you to post your questions on Piazza.

Homework:

Homework will be assigned weekly (posted on Piazza) and due in the beginning of class on Fridays. I will not accept homework via email. If you need an extension, ask me before the due date. I expect that this will happen very rarely. Late homework will not be graded unless you have been granted an extension.

The homework will be graded for accuracy. You can work together to solve problems, but you should write down a clean copy of your solutions by yourself. It is your responsibility to understand all of the work that you submit. Credit will only be given for problems in which appropriate work is shown.

Classwork:

Classes will usually consist of lectures and/or classwork.¹ It's probably more effective (and fun!) to learn math by thinking about problems than by listening to me lecture, so I will try to some classwork in most classes. You can work on classwork by yourself or in small groups. I may ask you to turn in the classwork, but I won't grade it for accuracy. You'll get credit as long as you hand in something reasonable. Mostly, I'll use the classwork to gauge everyone's understanding of the material.

Quizzes:

We may occasionally have short quizzes, either in class or in tutorial. I will grade these for accuracy. I will let you know at least one day in advance of a quiz. My intention with the quizzes is to encourage you to review the basics. I may make some of the quizzes "bonus," meaning they can only help your grade.

Midterm and final:

The tests will cover material from class and homework. The final exam is cumulative and worth 30% of your grade. Neither notes nor books will be allowed during the tests.

It is the policy of the Department of Mathematics that the following rules apply to final exams in all undergraduate mathematics courses:

1. The final exam must occur at the time and place designated on the College Final Exam Schedule. In particular, no final examinations may be given during the tenth week of the quarter, except in the case of graduating seniors.
2. Instructors are not permitted to excuse students from the scheduled time of the final exam except in the cases of an Incomplete, or a graduating senior.

Final presentations:

Final presentations will take place in the last 1–2 classes. They should be 10–15 minutes long on a topic of interest to you, chosen in agreement with me. By November 4, I will provide you with a rubric and some topic ideas.

Participation:

Please participate in class! I will use participation as one way to determine borderline grades. Do not feel embarrassed about asking "stupid" questions; if you don't understand something, you must ask! Also, do not worry about giving "wrong" answers. Math is best done by trying many different approaches and seeing if they work. (Chances are, most of them won't work, and that's normal!)

Note: The policies outlined above are subject to reasonable change at my discretion. In the event of a change, I will give written or verbal notice.

¹To a mathematician, the phrase "and/or" is redundant. We'll see why later in the course.