

## **Math 111A**

### **Instructor information**

Name: Elijah Fender

Office: 4117 McHenry Library

Email: fender@ucsc.edu

Office Hours:

Monday/Wednesday noon-1PM

in MCH 4112

### **Course information**

Class meeting: MWF 09:00AM-11:30AM

Classroom: N. Sci Annex 102

### **Discussion Sections**

Will be lead by: Cisil Karaguzel

email:ckaraguz@ucsc.edu

They are: TuTh 01:00PM-03:00PM

And located in: Soc Sci 2 137

### **Textbook**

For this course there will be no required textbook we will be following course notes by Robert Boltje given at this link:

<https://boltje.math.ucsc.edu/courses/x16/x16m111anotes.pdf>

If at any point this link is broken please send me an email.

Robert is a professor doing great work in Algebra at our own UCSC and has excellent notes. He has taught this very class before and using the notes will help protect your wallets and narrow our scope for the class.

For a supplemental resource I recommend: Abstract Algebra, 3rd Edition 3rd Edition by Dummit and Foote. ISBN-10: 0471433349. It's a well written book that contains much of what most non algebra focused mathematicians need from the field.

## **Course Description**

Group theory including the Sylow theorem, the structure of abelian groups, and permutation groups as well as solvable groups. This is an upper division class in the summer. We will be strapped for time. I recommend you read relevant sections before coming to class and attending all class/discussion sections.

## **Grade Breakdown**

Overall score is computed from homework (weight 10% ), quizzes (weight 10%), midterm (weight 30%), and final exam (weight 50%).

Passing requirement is 50% of the overall score and 50% of the final exam.

Homework is due every Monday, save the first, in class or my office hours after class.

Quizzes will be given thursdays in section.

The midterm will be: Friday August 17th in class

The final will be Friday August 31st in class

## **Latex**

Latex is a useful tool for typing mathematics. The following website contains free links for Tex for mac, windows and Linux: <https://www.latex-project.org/get/>

This website can be used to type and compile Tex online: <https://www.sharelatex.com/>

Here is one of many, many examples of how to start things off on youtube: <https://www.youtube.com/watch?v=Y-kXtWdjt看>

There are many site that have good Tex intros. I also personally find this website helpful: <http://detexify.kirelabs.org/classify.html>

The above website is quite useful as it allows you to draw symbols into a box and it tells you the Tex command for the symbol.

**Tentative schedule:** we will try to cover material as follows.

Week 1: sections 1-3

Week 2: sections 4-6

Week 3: sections: 7-9

Week 4: sections 10-11

Week 5: all the rest

### **Academic integrity and Positive Study Environment**

Both the university and myself believe that academic integrity is important to our institution. If I find that students have copied or have been less than honest about their work I am required to report it to the university. In this class I **DO** want and encourage you to work together both in and outside of class. However, I ask that when the time comes to write up and submit your solutions you write your own original solution up. If you make significant progress working on a problem with a classmate please credit them when you write up your solution. Of course excluding tests where you must present only your own work.

I also wish to create a positive learning environment where everyone can feel free to speak, ask questions, make suggestions, voice concerns, and contribute to the class. Please feel free to come talk to me if I or anyone else says something that makes you uncomfortable.

### **DRC accommodations**

If you require DRC accommodations for the class please let me know in a timely fashion. I will do my best to work with you and make sure you have all the tools you need to succeed.