

## **Math 128A Classical Geometry: Euclidean and Non-Euclidean**

### **Instructor information**

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Office Hours:

Thursday 10am-12pm in McHenry 1261

### **Course information:**

Class meeting: MWF 01:00pm-03:30pm

Classroom: Engineer 2 192

### **Discussion Sections**

No discussion section.

### **Textbook**

For this course we will be following a *course notes*, *Euclidean plane and its relatives*, written by *Anton Petrunin* which can be found at this link:

<https://arxiv.org/abs/1302.1630>

For supplemental resources I recommend:

- (1) *Geometry: Euclid and Beyond*, written by *Robin Hartshorne*. If you have a background of abstract algebra, this book will be a good choice for this course. It uses *Hilbert's axiom system* which is different from the course notes I adopted.
- (2) *The Thirteen Books of the Elements*, written by *Euclid*. The most influential book ever written.

### **Course Description**

Axiomatic approach to Euclidean Geometry. Ruler-and-compass construction problem. Projective, spherical and hyperbolic geometries covered.

## **Grade Breakdown**

Homework 30%, Midterm 30%, Final 40%.

Homework is due every Monday.

The Midterm will be: Friday July 12th in class

The final will be: Friday July 26th in class

## **Tentative schedule**

week 1: chapter 1-3

week 2: chapter 4-7

week 3: chapter 8-10

week 4: chapter 11-13

week 5: chapter 14-16

## **DRC Accommodations**

The Disability Resources Center reduces barriers to inclusion and full participation for students with disabilities by providing support to individually determine reasonable academic accommodations. If you have questions or concerns about exam accommodations or any other disability-related matter, please contact the DRC office, located in Hahn 125 or at 831-459-2089 or [drc@ucsc.edu](mailto:drc@ucsc.edu).

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