

# discrete geometry . geometría discreta

san francisco state university . universidad de los andes

federico ardila m.

## Instructor.

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### Meetings.

.bog. Mondays, Wednesdays, Fridays 5:10-6:00. PU-300. .sf. Mondays, Wednesdays, Fridays 2:10-3:00. Thornton 211.

### Office hours.

Mondays, Fridays 3:10-4:00.

### Course website.

### http://math.sfsu.edu/federico/polytopes.html

You are expected to visit this website often, and participate actively on the online discussion forum, which will be a very useful source of projects. On the website you will find, among others:

- the homework assignments,
- some suggested final projects,
- the lecture notes,
- links to the lecture videos, and
- a link to the online discussion forum.

### Textbook.

There is no required textbook. Much of the course will follow parts of:

- G. Ziegler. Lectures on polytopes.
- R. Stanley. An introduction to hyperplane arrangements. www-math.mit.edu/~rstan/arr.html.

### Prerequisites.

You must be prepared to devote at least 10 hours a week on this class. The course will require mathematical maturity, but the only formal prerequisites are:

- Math 325 (SFSU) or Algebra Lineal 2 (Los Andes) or equivalent, and
- Math 301 (SFSU) or Matemática Estructural (Los Andes) or equivalent.

### Grading and tentative due dates.

- 50% main homework (due Sep. 7(sf)/8(bog); Sep. 20/22; Oct. 4/6; Oct. 18/18)
- 10% light homework (in late October, November)
- 10% project proposal (due Nov. 1)
- 35% final project (due Dec. 6)

### further extra credit:

- 5% for active participation in online forum.
- $\bullet$  10% in the project grade for teams of a bog and an sf student.