

# Math 4370: Computational Algebra

Lecturer: Karola Mészáros

This is an introductory class to computational algebra for undergraduates. Topics include polynomials and affine varieties, ideals, Gröbner bases, elimination theory, algebra-geometry dictionary, and more.

## 1 Textbook

We will be using

- *Ideals, varieties and algorithms*, Fourth Edition, by Cox, Little, O'Shea. (fourth edition)

## 2 Course Website

<https://pi.math.cornell.edu/~karola/4370/class4370-2019.html>

## 3 Grading

Problem sets: 30%.

[Prelim 1](#) on October 10 (+ possibly a take home part): 35%.

[Prelim 2](#) on November 21 (+ possibly a take home part) : 35%.

**Homework** is due on gradescope on most Wednesdays. If you did not receive a full score for a problem part you submitted, and would like to resubmit a new, corrected version, you can do so, within the time frame specified on each assignment. Your final score on the homework will reflect the best score you received.

Instructions on how to hand in homework:

[https://gradescope-static-assets.s3-us-west-2.amazonaws.com/help/submitting\\_hw\\_guide.pdf](https://gradescope-static-assets.s3-us-west-2.amazonaws.com/help/submitting_hw_guide.pdf)

**The classroom is a technology-free zone.** If you feel you have a serious reason to use some gadget, please discuss this with me in advance.