

# Math Camp

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**Class Hours:** 9 - 12, 2 - 5 (Generally)

**Classroom:** WGR407 (tentative)

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## Course Description

We hope to have online lectures available that you can watch prior to class. These are meant to more or less replace notes and allow students to participate more in class, so ask questions when you are confused (trust us someone else in the room will have the same question). The purpose of this course is to serve as:

- (i) a refresher on some elementary mathematical ideas that you will need throughout the first year; and
- (ii) a gentle introduction to some new technical skills that you will be exposed to in short order in your fall classes.

Unlike prior years, we do not intend to teach this course as a course in pure mathematics; we will instead focus heavily on application, intuition, and developing hands-on skills, rather than formal theory, which will be presented to in your first-semester math course.

We hope to cover elements of the following topics:

- (i) Elementary Analysis
- (ii) Linear Algebra
- (iii) Calculus of Several Variables
- (iv) Dynamic Programming
- (v) Programming in STATA, Matlab, and R
- (vi) Reference management and  $\text{\LaTeX}$

We look forward to working with you all and feel free to reach out to us to chat any time! Welcome!