

Sums of Squares (FNS 195-S) Syllabus

Fall 2014
Drew Armstrong

Location:

Eaton Residential College 145
TuTh 3:35–4:50 PM

Instructor:

Drew Armstrong
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Webpage:

All course information will be posted here:
www.math.miami.edu/~armstrong/195fa14.html

Office Hours:

To be announced.

Textbook:

There is no textbook for this course. If you are looking for casual and entertaining reading to accompany the course, I recommend *Numbers and Geometry* by John Stillwell. I will certainly refer to this book and other books by Stillwell as we go along.

Evaluation:

This is not a typical mathematics course in that I will try to avoid lecturing at you too much. The course will be very participatory and your grade will be based on the quality of your participation. I will often ask you to express mathematical ideas in writing and at the whiteboard. Each student will complete at least one in-depth independent study.

Topic:

This course will explore the deep role that the so-called **Pythagorean Theorem** plays in mathematics. This theorem is the bridge that connects the concept of “number” to the concept of “geometry”. We will follow our instincts and ask lots of naive questions. This will lead us to some beautiful topics that touch on many areas of modern mathematics.

My Goal for You:

One of the joys of mathematics is the moment of clarity that occurs when a previously difficult and opaque problem becomes transparent and harmonious. My goal for each student in the class is that they get to experience this moment.