

## Overview

Ever wondered how you can prove beyond a doubt that you are correct? What does it mean to be logical?

**Learning Goals:** A mathematical proof is an argument which convinces other people that something is true using logic. In this class, you will use your basic math skills to learn how to argue logically, and see the beauty in mathematics. You will actually experience what mathematics is really about! (hint: it's not about boring calculations! :) )

**Objective:** This class focuses on learning the mechanics of proof methods and techniques. We are far less concerned on proving rigorous results, but more focused on writing a good, logical proof. Overall, this class allows students to envision the usage and power of proofs in their various math courses in High School.

**Teaching Philosophy:** Students will be working in groups on the chalkboards for no less than 50% of class time. This is the best way to learn this particular pillar of math in a short time; through trial and error, and with each other given adequate scaffolding from the instructor.

**Structure:** Students will be provided a copy of the class notes. The class notes are written out in extensive details for a reason. During class, students will pay attention to their peers and instructor to follow along with the logic behind each proof. The class notes are to be used for reference only during class. Students do not (and should not) have to take notes during class. It is more important that they can see and follow through on the material being presented.