

# Senior Research Project

Graduation Requirement for Math Majors:

Choice A) Fulfill a minor (15-18 hours) in another discipline

Choice B) Capstone: Research Project with a professor (Course: MATH 3396/ MATH 4396)

# Getting Started

- 1) See what interests you, or to get ideas: look for professors that research topic(s) that interest you (look at their website, their CV, or just ask them)
- 2) Tell the professor your interest in working with them for the project
- 3) Fill out a General Petition Form and have the professor sign it
- 4) Enroll in Math 3396

# What is Algebraic Geometry?

- 1) Algebraic Geometry is initially a study of systems of polynomial equations over a field  $k$ .
- 2) Includes Complex Analysis, Topology, and some Number Theory

# My Experience (So Far...)

- 1) Review of material that will be mentioned in Algebraic Geometry (Material from MATH 3330 such as Rings, Fields, Integral Domains, Ring of Polynomials, Ideals, etc.)
- 2) Understand fields different from  $\mathbb{Q}$ ,  $\mathbb{R}$ , and  $\mathbb{C}$
- 3) Since Algebraic Geometry involves systems of polynomial equations over a field  $k$ , I will be investigating systems of equations over the field  $k$ ,  
 $k = \mathbb{Z}_n$  where  $n$  is prime

Questions?