Department: Mathematics and Computer Sciences
Division: Applied Mathematics
Level and Major: Undergraduate

Course Title: Introduction to Algebraic Geometry
Number of Credits: 3
Prerequisite: Introduction to Algebraic Geometry, Foundation of Algebra
Lecturer:

Course Description:

Course Goals and Objectives:

Course Topics:

- Affine Varieties
- Groebner Bases
- The Elimination and Extension Theorems
- The Algebra–Geometry Dictionary
- Polynomial and Rational Functions on a Variety
- Projective Algebraic Geometry

Reading Resources:

- Cox, D., Little, J., & OShea, D. (2013). *Ideals, varieties, and algorithms: an introduction to computational algebraic geometry and commutative algebra*. Springer Science & Business Media.

Evaluation: