COURSE DETAIL

ALGEBRAIC GEOMETRY
Country Korea, South
Host Institution Yonsei University
Program(s) Yonsei University
UCEAP Course Level Upper Division
UCEAP Subject Area(s) Mathematics
UCEAP Course Number 106
UCEAP Course Suffix
UCEAP Official Title ALGEBRAIC GEOMETRY
UCEAP Transcript Title ALGEBRAIC GEOMETRY
UCEAP Quarter Units 4.50
UCEAP Semester Units 3.00

Course Description

This is an introductory course on algebraic geometry. We cover affine/projective varieties, Zariski topology, Hilbert's Nullstellensatz, regular morphisms, Zariski tangent spaces, etc. Topics include Polynomial Rings, Varieties and Ideals, Irreducibility of Affine Varieties, Coordinate Rings, Polynomial Maps, Proof of the Nullstellensatz, Dimension of Affine Varieties, Tangent Spaces and Smoothness, Projective Varieties, Maps of Projective Varieties, Quasiprojective Varieties, and Further Quasiprojective Topics.

Prerequisites: Modern algebra (1), (2), Topology (1)

Language(s) of Instruction
English

Host Institution Course Number
MAT4331

Host Institution Course Title
ALGEBRAIC GEOMETRY

Host Institution Course Details
https://underwood1.yonsei.ac.kr/

Host Institution Campus

Host Institution Faculty

Host Institution Degree

Host Institution Department

Course Last Reviewed
2025-2026

Print