Brendan Hassett
Teaching Experience

Rice University

Spring 2002

Math 464, *Algebra II*: study of groups, rings, fields, and vector spaces; includes matrices, determinants, eigenvalues, canonical forms, and multilinear algebra, as well as the structure theorem for finitely generated Abelian groups and the Galois theory

Math 465, *Topics in Algebra, Introduction to computational algebraic geometry:* Gröbner bases, Buchberger algorithm, ideal membership problem, affine and projective varieties, resultants, Nullstellensatz, and the Bezout Theorem

Fall 2001

Math 211, *Ordinary Differential Equations and Linear Algebra*: analytic methods, numerical techniques, and qualitative tools for understanding ordinary differential equations; matrix algebra

Chinese University of Hong Kong, Institute of Mathematical Sciences

Spring 2001

Graduate course, *Introduction to Algebraic Geometry II*: elements of graded algebras and modules, coherent sheaves, sheaf cohomology, families of algebraic varieties, and Gröbner bases

Fall 2000

Graduate course, *Introduction to Algebraic Geometry I*: Nullstellensatz, affine and projective varieties, dimension, normalization, and examples

University of Chicago

Spring 1999

Math 255, *Basic Algebra II*: basic properties of unique factorization domains, principal ideal domains, and abstract linear algebra

Math 256, *Basic Algebra III*: Jordan canonical form, similarity of matrices, properties of finite fields, and Galois theory

Spring 1998

Graduate course, *Hodge Theory and Algebraic Geometry*: an introduction to variations of Hodge structure and the geometry of period domains, with applications to rationality questions

Winter 1998

Math 175, *Elementary Number Theory*: basic properties of congruences, the division algorithm, continued fractions, and Pell's equation

Spring 1997

Math 204, *Analysis in* $\mathbb{R}^n$ *II*: topological properties of metric spaces and $\mathbb{R}^n$, linear transformations, and the definition and applications of the derivative

Math 263, *Introduction to Algebraic Topology*: classification of Riemann surfaces, the definition of the fundamental group, and the theory of covering spaces

Fall 1996

Math 203, *Analysis in* $\mathbb{R}^n$ *I*: basic elements of logic and proofs, limits, continuous functions, and linear transformations

Math 250, *Elementary Linear Algebra*: the theory of matrices and linear transformations, with an emphasis on computational methods and applications

Harvard University

Spring 1996

Math 253, *Étale Cohomology*: Course assistant for A. J. de Jong

Spring 1995

Math 21B, *Linear Algebra and Differential Equations*: introduction to linear algebra, including linear transformations and determinants, eigenvalues and eigenvectors; ordinary differential equations and systems and their solution; applications.

Fall 1994

Math 269, *Topics in Algebraic Geometry*: Course assistant for Joe Harris

Spring 1994

Math 1A, *Introduction to Calculus*: differential calculus of algebraic, logarithmic, and trigonometric functions with applications; an introduction to integration