

MAD: Mathematics: Discrete Courses

Courses

MAD 4401 Numerical Analysis

College of Sci and Engineering, Department of Mathematics & Statistics

3 sh (may not be repeated for credit)

Prerequisite: [MAS 3105](#)

Numerical solutions of equations in one variable, interpolation and polynomial approximation, numerical differentiation and integration, numerical solutions of initial value and boundary value problems for O.D.E., direct methods for solving linear systems, iterative techniques in matrix algebra. Some problems solved with aid of computer. A computer language is required prior to this course. Meets Gordon Rule Theoretical Mathematics Requirement.

MAD 4905 Directed Study

College of Sci and Engineering, Department of Mathematics & Statistics

1-12 sh (may be repeated indefinitely for credit)

MAD 5905 Directed Study

College of Sci and Engineering, Department of Mathematics & Statistics

1-12 sh (may be repeated indefinitely for credit)

MAD 6396 Topics in Combinatorial Theory

College of Sci and Engineering, Department of Mathematics & Statistics

3 sh (may not be repeated for credit)

This course is devoted to topics chosen from among graph theory, coding theory, matroid theory, design theory, finite geometries, projective geometries, optimization, and searching and sorting algorithms.

MAD 6405 Numerical Analysis I

College of Sci and Engineering, Department of Mathematics & Statistics

3 sh (may not be repeated for credit)

Theoretical treatment of numerical methods of linear algebra supplemented with use of computers; polynomial approximations, uniform approximations, least square approximations, error analysis for numerical solutions of linear equations, algebraic eigenvalue problems.