Mathematics (MATH)

Courses

MATH 529. Applied Regression Analysis. 4 Credits.
Techniques for fitting linear regression models are developed and applied to data. Topics include simple linear regression, multiple regression, curvilinear regression, and linearizable models.
P: Graduate status. REC: Introductory Statistics, Calculus I, and Linear Algebra. Knowledge of Excel and R.
Fall Only.

MATH 555. Applied Mathematical Optimization. 3 Credits.
Analytical and numerical optimization techniques; linear, nonlinear, integer, and dynamic programming. Techniques applied to problems of water, forest, air and solid-waste management.
P: gr st.
Fall Even.

MATH 630. Design of Experiments. 4 Credits.
Statistical theory and practice underlying the design of scientific experiments, and methods of analysis. Replication, randomization, error, linear models, least squares, crossed and nested models, blocking, factorial experiments, Latin squares, confounding, incomplete blocks, split-plots.
P: Graduate student status, Introductory Statistics course completion
Spring Even.

MATH 631. Multivariate Statistical Analysis. 4 Credits.
Principles and practice in the analysis of multivariate data. Correlation, partial correlation, principle components, factor analysis, discriminant functions, canonical correlation, cluster analysis, multidimensional scaling. Emphasis on computer analysis of actual data.
P: Graduate status and completion of an Introductory Statistics course. REC: Calculus I, Linear Algebra, and Regression Analysis.
Spring Odd.

MATH 698. Independent Study. 1-3 Credits.
P: gr st.

MATH 728. Abstract Algebra I - Noncommutative Algebra. 3 Credits.
Major topics of the course are groups and rings without commutativity assumption. Topics in detail include: homomorphisms and group actions, the Sylow Theorem, Solvable and Nilpotent groups, module theory, primitive and Artinian rings, Offered online format only.
P: Abstract algebra course at senior level or consent of instructor.