



# JUST $\int$ du IT.©

## K-STATE MATH COURSES FOR SUMMER 2009

This summer, the solution to your math problems is as simple as attending K-State summer sessions. Rated one of the strongest and best math departments in the country by its students, the K-State math department has a wide variety of choices this summer. From lower division algebra, calculus, and geometry courses to a wide variety of upper division courses of interest to math, engineering, and physics majors alike, the Department of Mathematics has something to offer you.

Running June 8 through July 31, most summer session courses are offered in a condensed 8-week format. New students should contact Admissions ([www.k-state.edu/admit/](http://www.k-state.edu/admit/)). Enrollment for the summer semester begins simultaneously with enrollment for the fall of 2009 on iSIS (<https://isis.k-state.edu/psp/ISIS/?cmd=login>). Campus parking and on-campus housing will be available.

### Lower Division Courses:

#### **MATH 010:** Intermediate Algebra

Basic study of functions, graphing, and linear systems.

#### **MATH 100:** College Algebra

Study of coordinate systems, functions, polynomials, zeroes of polynomials, systems of equations, inequalities, and matrices.

#### **MATH 150:** Plane Trigonometry

Exploration of the six trigonometric functions and identities.

#### **MATH 499A:** Topics in Undergraduate Mathematics

Independent study in undergraduate level mathematics of the student's choice with the consent of an instructor to direct the study.

#### **MATH 551:** Applied Matrix Theory

Examines linear algebra concepts and their application to systems of linear equations. This technique is used in the discussion of vector spaces, the eigenvalue problem, least squares, quadratic forms and linear programming.

#### **MATH 205:** General Calculus and Linear Algebra

Calculus concepts explored and applied for economics and business majors.

#### **MATH 220:** Analytic Geometry and Calculus 1

An introduction to calculus. Basic concepts in integrability and differentiability are covered.

#### **MATH 221:** Analytic Geometry and Calculus 2

Topics include transcendental functions, techniques in integration, infinite series, and convergence tests.

#### **MATH 745:** Ordinary Differential Equations

Topics include first and second order equations and applications, existence and uniqueness theorems, oscillation theorems, series solutions, Sturm-Liouville problems, special functions, Laplace transformation, linear and non-linear systems, stability via first and second Liapunov's method and asymptotic methods.

#### **MATH 222:** Analytic Geometry and Calculus 3

Calculus concepts are explored and applied in multiple dimensions.

#### **MATH 240:** Elementary Differential Equations

Study of basic differential forms with emphasis on constant-coefficient linear equations, series methods, and the Laplace transform.

#### **MATH 896 A:** Topics in Mathematics

Selected topics in graduate level mathematics.

