KANSAS STATE
Department of Statistics

M.S. in Statistics, Data Science & Analytics Track

More computational than our traditional curriculum, with a balanced approach to modeling theory and practical skills that are in growing global demand for both the private and public sectors.

Required Courses

STAT 727 (3)
Statistical Computing/ Numerical Methods of Statistics

At least one from the Optimization for Data Science courses:

STAT 760 (3)
Optimization for Data Science

STAT 761 (3)
Discrete Optimization & Scalability for Data Science

At least two from the General Methods courses:

STAT 713 (3)
Applied Linear Statistical Models

STAT 717 (3)
Categorical Data Analysis

STAT 720 (3)
Design of Experiments Or **STAT 722 (3)** Exp. Design P.D. & Q.I.

STAT 730 (3)
Multivariate Statistical Methods

At least two from the Applied Analytics courses:

STAT 764 (3)
Applied Spatio-Temporal Statistics

STAT 766 (3)
Applied Data Mining Machine Learning & Predictive Analytics

STAT 768 (3)
Applied Bayesian Modeling and Prediction

Electives can be selected from Statistics courses at 700 level or above, as well as from other departmental offerings, with approval by the department.

Degree Completion Options

- **Report Option:** A total of 30 credits and write a report for 2 additional credits (STAT 898).
- **Non-report Option:** A total of 36 credits and complete a Capstone Project.

Sample Curriculum for Report Option

FALL (Even)	Spring (Odd)	FALL (Odd)	Spring (Even)

FALL (Even)

STAT 713 (3)
Applied Linear Statistical Models

STAT 764 (3)
Applied Spatio-Temporal Statistics

One Elective:
- STAT 710 or 750.
- Other department.

Spring (Odd)

STAT 727 (3)
Statistical Computing/ Numerical Methods of Statistics

STAT 768 (3)
Applied Bayesian Modeling and Prediction

STAT 761 (3)
Discrete Optimization & Scalability for Data Science

FALL (Odd)

STAT 720 (3)
Design of Experiments Or **STAT 722 (3)** Exp. Design P.D. & Q.I.

Two Electives:
- STAT 716, 766, 750, 860, 880, 907, 945, or 950.
- Other department.

Spring (Even)

STAT 760 (3)
Optimization for Data Science

STAT 898 (2)
Master's Report

For more details visit: **www.k-state.edu/stats/academics**