

Recommended Learner Journey: Statistics Pathway

Follow this learner journey if you are skilled in statistics.

1. Complete the statistics **pathway** to earn admission to the degree.

Data Science Foundations: Statistical Inference (3 credits)

Probability Theory: Applications for Data Science
Statistical Inference for Estimation in Data Science
Statistical Inference & Hypothesis Testing in Data Science Applications

2. Complete your **vital skills for data scientists** courses.

Vital Skills for Data Scientists (4 credits)

Data Science as a Field
Cybersecurity for Data Science
Ethical Issues in Data Science
Visualization Fundamentals

3. Complete **core & elective** courses in any order.

Data Science Foundations: Data Structures & Algorithms (3 credits)

Algorithms for Searching, Sorting & Indexing
Trees & Graphs: Basics
Dynamic Programming, Greedy Algorithms

Data Mining Foundations & Practice (3 credits)

Data Mining Pipeline
Data Mining Methods
Data Mining Projects

Statistical Modeling for Data Science (3 credits)

Modern Regression Analysis in R
ANOVA Experimental Design
Generalized Linear Models & Nonparametric Regression

Machine Learning (3 credits)

Introduction to Machine Learning: Supervised Learning
Unsupervised Algorithms in Machine Learning
Introduction to Deep Learning

Big Data Architecture (2 credits)

Fundamentals of Big Data Architecture
Big Data Architecture in Production

Elective Courses (9 credits)

See **Curriculum** page for details. More electives coming soon.