**SAS® Data Science Certification Topics**

The data science certification program comprises the focus areas of both the SAS Certified Big Data Professional and the SAS Certified Advanced Analytics Professional programs, including:

* Critical SAS programming skills.
* Accessing, transforming and manipulating data.
* Improving data quality for reporting and analytics.
* Fundamentals of statistics and analytics.
* Working with Hadoop, Hive, Pig and SAS.
* Exploring and visualizing data.
* Essential communication skills.
* Machine learning and predictive modeling techniques.
* How to apply these techniques to distributed and in-memory big data sets.
* Pattern detection.
* Experimentation in business.
* Optimization techniques.
* Time series forecasting.

**Module 1: Big Data Preparation, Statistics and Visual Exploration**

* Course 1: Big Data Challenges and Analysis-Driven Data
* Course 2: Exploring Data With SAS Visual Analytics
* Course 3: Statistics 1: Introduction to ANOVA, Regression and Logistic Regression
* Course 4: Preparing Data for Analysis and Reporting
* Course 5: Crafting Compelling (and true) Data Stories

Module 1 prepares you for the SAS Big Data Preparation, Statistics and Visual Exploration certification exam.

**Module 2: Big Data Programming and Loading**

* Course 1: Introduction to SAS and Hadoop: Essentials
* Course 2: DS2 Programming Essentials With Hadoop
* Course 3: Hadoop Data Management With Hive, Pig and SAS
* Course 4: Getting Started With SAS In-Memory Statistics

Module 2 prepares you for the SAS Big Data Programming and Loading certification exam.

**Module 3: Predictive Modeling**

* Course 1: Applied Analytics Using SAS Enterprise Miner

Module 3 prepares you for the Predictive Modeling certification exam.

**Module 4: Advanced Predictive Modeling**

* Course 1: Neural Network Modeling
* Course 2: Predictive Modeling Using Logistic Regression
* Course 3: Data Mining Techniques: Predictive Analytics on Big Data
* Course 4: Using SAS to Put Open Source Models Into Production

Module 4 prepares you for the Advanced Predictive Modeling certification exam.

**Module 5: Text Analytics, Time Series, Experimentation and Optimization**

* Course 1: Text Analytics Using SAS Text Miner
* Course 2: Time Series Modeling Essentials
* Course 3: Experimentation in Data Science
* Course 4: Optimization Concepts for Data Science

Module 5 prepares you for the Text Analytics, Time Series, Experimentation and Optimization certification exam.