



DELL TRAINING

Dell Emc Data Science Big Data Analytics

Master Dell EMC Data Science and Big Data Analytics to transform raw data into actionable insights for strategic decision-making.

DURATION

Flexible

LEVEL

Intermediate

FORMAT

Instructor-Led

- Globally Recognized Certification

- Expert-Led Hands-On Training

- Flexible Scheduling

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COURSE OVERVIEW

Unlock the power of data with the Dell EMC Data Science Big Data Analytics course, designed for aspiring data professionals and IT specialists looking to master the art and science of extracting insights from vast datasets. This comprehensive program delves into the foundational concepts of data science, big data technologies, and advanced analytics techniques. Participants will gain hands-on experience with industry-standard tools and methodologies, learning to collect, process, analyze, and interpret complex data to drive strategic business decisions.

This course emphasizes practical application, covering critical areas such as statistical modeling, machine learning algorithms, and data visualization. You will explore core technologies like Hadoop, Spark, and other ecosystem components crucial for handling big data volumes and velocities. By completing this certification, you will not only understand the theoretical underpinnings but also develop the robust skillset necessary to solve real-world business problems, identify trends, predict outcomes, and optimize performance across various industries, positioning you as a valuable asset in the data-driven economy.

Level	Intermediate
Vendor	Dell

COURSE CURRICULUM

01 Module 1: Introduction to Data Science and Big Data Landscape

- Defining Data Science, Big Data, and Analytics
- The Data Science Lifecycle
- Key Characteristics of Big Data (Volume, Velocity, Variety, Veracity, Value)
- Introduction to Analytics Frameworks and Architectures
- Overview of Data Science Tools and Ecosystems

02 Module 2: Big Data Technologies and Infrastructure

- Hadoop Ecosystem Fundamentals (HDFS, YARN, MapReduce)
- Introduction to Apache Spark for Big Data Processing
- Data Ingestion and Integration (e.g., Sqoop, Flume, Kafka)
- NoSQL Databases for Big Data Storage (e.g., Cassandra, MongoDB)
- Cloud-based Big Data Solutions Overview

03 Module 3: Data Preparation, Exploration, and Statistical Methods

- Data Collection, Cleaning, and Transformation Techniques
- Exploratory Data Analysis (EDA) with Python/R
- Statistical Concepts for Data Science (Hypothesis Testing, Regression, Classification)
- Feature Engineering and Selection
- Data Quality and Governance in Big Data Environments

04 Module 4: Machine Learning for Big Data Analytics

- Supervised Learning Algorithms (Linear Regression, Logistic Regression, Decision Trees, SVM, Random Forests)
- Unsupervised Learning Algorithms (Clustering: K-Means, Hierarchical Clustering)
- Model Evaluation and Validation Techniques
- Ensemble Methods and Boosting
- Introduction to Deep Learning Concepts

Module 5: Data Visualization and Communication

- 05**
- Principles of Effective Data Visualization
 - Tools for Data Visualization (e.g., Tableau, Power BI, Matplotlib, Seaborn)
 - Creating Interactive Dashboards and Reports
 - Storytelling with Data: Communicating Insights Effectively
 - Presenting Analytical Findings to Stakeholders

06 Module 6: Advanced Topics and Real-World Applications

- Introduction to Real-time Analytics
- Big Data Security and Privacy Considerations
- Ethics in Data Science
- Case Studies: Applying Data Science to Industry-Specific Problems
- Project-Based Learning and Capstone Project

CAREER PATHWAYS

Graduates of this program are prepared for the following roles:

- > **Big Data Engineer specializing in Dell EMC solutions**
- > **Data Scientist focused on enterprise analytics and machine learning applications**
- > **Analytics Consultant driving data-driven strategies for large organizations**

FREQUENTLY ASKED QUESTIONS

Q: What specific Dell EMC big data tools or platforms are integrated into this data science curriculum?

While the course focuses on universal big data and data science principles, it provides a strong foundation compatible with Dell EMC's enterprise-grade data storage, processing, and analytics solutions. The curriculum equips you with the skills to leverage open-source technologies like Hadoop and Spark, which are often deployed on robust infrastructure provided by vendors like Dell EMC, enabling seamless integration with their ecosystem.

Q: How does this certification prepare me to handle real-world big data challenges in an enterprise environment?

This certification is designed with practical application in mind. You will learn to perform end-to-end data analysis, from data ingestion and cleaning to model building and insight generation, using tools and techniques prevalent in enterprise settings. The course includes modules on Big Data infrastructure (Hadoop, Spark) and case studies that simulate complex business problems, directly preparing you to contribute to data-driven initiatives in large organizations.

Q: What prior knowledge of statistics or programming is recommended before enrolling in the Dell EMC Data Science Big Data Analytics course?

A basic understanding of statistical concepts and fundamental programming logic (preferably in Python or R) is highly recommended. While the course covers essential statistical methods and introduces programming constructs relevant to data science, prior exposure will allow you to grasp advanced topics more quickly and maximize your learning experience. We recommend reviewing introductory statistics and Python/R basics if you are new to these areas.

ABOUT COMPUTER PRIDE



East Africa's Premier IT Training Center

With over 15 years of excellence, Computer Pride delivers globally recognized certification programs from leading technology vendors. Located on Kenyatta Avenue in Nairobi's CBD, our state-of-the-art facilities and expert instructors have empowered thousands of professionals across East Africa.

15+

Years of Excellence

10,000+

Professionals Trained

50+

Vendor Certifications

READY TO ENROL?

Take the next step in your technology career.

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