

THE COMPLETE COURSE ON DATA SCIENCE & BIG DATA ANALYTICS

"Transform Raw Data into Actionable Intelligence with End-to-End Data Science Skills"

Schedule

Date	Venue	Fees (Face-to-Face)
02 - 06 Mar 2026	Dubai, UAE	USD 3495 per delegate
09 - 13 Aug 2026	Riyadh, KSA	USD 3495 per delegate

► **Available delivery methods:** Face-to-Face & Online Training

Introduction

Data is the lifeblood of modern organizations, yet turning vast, complex datasets into clear business value remains a challenge. This intensive, hands-on masterclass bridges the gap between theory and real-world application, giving participants a complete toolkit for every stage of the data life-cycle—from acquisition and cleaning to modeling, visualization, and strategic decision-making.

Across five immersive days, you'll explore Python, SQL, and cloud-native analytics while mastering machine-learning workflows that drive competitive advantage. Whether you're a beginner looking to break into data science or an experienced professional keen to sharpen big-data skills, this program will accelerate your journey.

Objectives

By the end of this course, participants will be able to:

- Frame Business Problems as Data Questions
- Collect, clean, and transform structured & unstructured data with Python & SQL
- Build, validate, and interpret supervised & unsupervised machine-learning models
- Leverage big-data ecosystems (Hadoop, Spark) for large-scale processing
- Communicate insights with compelling dashboards & storytelling techniques
- Apply MLOps principles for model deployment, monitoring, and governance

Why Attend

- Gain a comprehensive understanding of the full data analytics lifecycle
- Stay competitive in today's data-driven business environment
- Learn practical skills from industry-experienced trainers
- Work on real-world projects and datasets
- Enhance your career prospects with cross-industry analytical skills
- Network with peers in analytics and business intelligence fields

Target Audience

This program is designed for:

- Data analysts and scientists
- Business intelligence professionals
- IT and software engineers
- Statisticians and mathematicians
- Decision-makers seeking data-driven strategies
- Anyone interested in pursuing a career in data science or big data

Individual Benefits

Key competencies that will be developed include:

- Data exploration and interpretation skills
- Ability to create machine learning models
- Proficiency in Python, R, or similar tools
- Confidence in managing and analyzing large datasets
- Skill in translating data into business insights

Organizational Benefits

Upon completing the training course, participants will demonstrate:

- Improved business decision-making through data analysis
- Enhanced forecasting and performance measurement
- Ability to leverage big data tools for cost-effective insights
- Stronger innovation driven by analytics-based strategies
- Reduced risks and data-driven problem-solving approaches

Course Outline

Detailed 5-Day Course Outline

Training Hours: 7:30 AM - 3:30 PM Daily Format: 3-4 Learning Modules | **Coffee Breaks:** 09:30 & 11:15 | **Lunch Buffet:** 01:00 - 02:00

Day 1: Introduction to Data Science and Analytics

- Module 1: The Data Science Lifecycle
- Data science and big data overview
- Analytics process models (CRISP-DM)
- Introduction to tools: Python, R, Jupyter Notebooks
- Module 2: Data Collection and Cleaning
- Data types and sources
- Data wrangling and preprocessing techniques

Day 2: Statistical Analysis and Visualization

- Module 1: Descriptive and Inferential Statistics
- Central tendency, distributions, correlation
- Hypothesis testing and confidence intervals
- Module 2: Data Visualization Tools
- Visual storytelling with Tableau/Power BI
- Python/R visualization libraries (matplotlib, seaborn, ggplot2)

Day 3: Predictive Modeling and Machine Learning

- Module 1: Supervised Learning
- Regression and classification algorithms
- Linear regression, logistic regression, decision trees
- Module 2: Model Evaluation
- Accuracy, precision, recall, ROC curves

Day 4: Unsupervised Learning and Big Data Technologies

- Module 1: Clustering and Dimensionality Reduction
- K-means, PCA, association rules
- Module 2: Big Data Architecture
- Hadoop ecosystem overview
- Apache Spark for distributed computing

Day 5: Capstone Project and Real-World Applications

- Module 1: Industry Use Cases
- Healthcare, finance, retail analytics
- Fraud detection, customer segmentation, recommendation engines
- Module 2: Final Project Presentation
- Team project: Data analysis from start to finish
- Instructor feedback and improvement insights

Certification

Participants will earn a Certificate of Completion in Data Science & Big Data Analytics, attesting to their capability to design, build, and operationalize data-driven solutions that deliver measurable business impact.

Why Choose MAWA Events

- **Global Expertise:** More than 17 years of experience in professional training and consulting.
- **Industry-Leading Faculty:** Courses delivered by seasoned professionals with hands-on experience.
- **Practical Insights:** Learn to turn theory into actionable strategies for real-world business impact.
- **Client-Focused Solutions:** Customized programs designed to achieve your organisation’s unique goals.

<p>In-House / Customized Training</p> <p>Interested in running this course for your team?</p> <p>Please contact us:</p>	<p>TEL:</p> <p>+601116373203</p>	<p>EMAIL:</p> <p>info@mawaevents.net</p>
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