



IT260: Advanced Business Intelligence & Data Analytics

Training Description:

In today's data-driven business environment, organizations are increasingly relying on Business Intelligence (BI) and Data Analytics to improve decision-making, optimize operations, enhance customer experiences, and gain competitive advantages. This comprehensive training course is designed to equip professionals with advanced knowledge and practical skills in Business Intelligence, Data Analytics, Data Visualization, Predictive Analytics and Data-Driven Decision Making.

Participants will learn how to transform raw data into meaningful insights, develop analytical frameworks, build effective dashboards and reports, utilize advanced analytical techniques and leverage modern BI tools to support strategic and operational decisions. The training course combines industry best practices, case studies, practical exercises and real-world applications across various sectors including oil & gas, manufacturing, utilities, government, finance, logistics and telecommunications.

The training course emphasizes both technical and business perspectives, enabling participants to understand how analytics initiatives create measurable business value while supporting organizational goals and digital transformation strategies.

Training Objectives:

By the end of the training, participants will be able to:

- ✓ Understand advanced Business Intelligence concepts, frameworks and methodologies
- ✓ Design and implement effective BI and analytics strategies
- ✓ Identify, collect, integrate, and manage data from multiple sources
- ✓ Apply advanced data analysis and statistical techniques
- ✓ Develop meaningful Key Performance Indicators (KPIs) and performance dashboards
- ✓ Utilize data visualization principles to communicate insights effectively
- ✓ Apply predictive analytics techniques for forecasting and decision-making
- ✓ Leverage modern BI tools and technologies
- ✓ Conduct business performance analysis and trend identification
- ✓ Implement data governance and data quality management practices
- ✓ Support strategic planning through data-driven decision-making
- ✓ Evaluate emerging trends in analytics, artificial intelligence and business intelligence

Expected Learning Outcomes

- ✓ Design and implement enterprise-wide BI initiatives
- ✓ Develop actionable insights from complex datasets
- ✓ Create meaningful dashboards and performance reports
- ✓ Apply predictive analytics for business forecasting
- ✓ Establish effective data governance practices
- ✓ Integrate AI-driven analytics into business processes
- ✓ Support executive decision-making through data-driven strategies
- ✓ Lead analytics and digital transformation initiatives within their organizations

Training Designed for:

This training course is intended for Business Intelligence Professionals, Data Analysts and Reporting Specialists, Business Analysts, Performance Management Professionals, Strategic Planning Specialists,

Operations Managers, Finance and Budgeting Professionals, Supply Chain and Procurement Personnel, Marketing and Sales Analysts, Digital Transformation Teams, IT and Information Management Professionals, Project Managers, Decision Makers and Executives, Government and Public Sector Professionals and Anyone responsible for analyzing business performance and making data-driven decisions.

Training Requirement:

“Hand’s on practical sessions, equipment and software will be applied during the course if required and as per the client’s request.”

Contents can be adapted to your specific wishes. It is therefore possible to focus on specific modules of the training course as per client’s learning needs and objectives. Further, it should be forwarded to us a month prior to the course dates.

Training Program:

DAY ONE:

FOUNDATIONS OF ADVANCED BUSINESS INTELLIGENCE & DATA STRATEGY

❖ Module 1: Introduction to Modern Business Intelligence

- Evolution of Business Intelligence
- BI versus Business Analytics
- Role of BI in Digital Transformation
- Data-Driven Organizations
- Business Value of Analytics
- BI Maturity Models

❖ Workshop:

- Assessing Organizational BI Maturity

❖ Module 2: Data Management Fundamentals

- Data Sources and Data Ecosystems
- Structured vs Unstructured Data
- Data Warehousing Concepts
- Data Lakes and Data Hubs
- ETL and ELT Processes
- Data Integration Techniques

❖ Practical Exercise:

- Mapping Enterprise Data Sources

❖ Module 3: Developing an Enterprise BI Strategy

- Aligning BI with Business Objectives
- Identifying Business Requirements
- Stakeholder Engagement
- BI Governance Framework
- Building a Data Culture
- Measuring BI Success

❖ Case Study:

- Designing a BI Roadmap

DAY TWO:

ADVANCED DATA ANALYTICS AND PERFORMANCE MEASUREMENT

- ❖ **Module 4: Data Preparation and Data Quality Management**
 - Data Cleansing Techniques
 - Data Validation Methods
 - Data Profiling
 - Managing Missing and Duplicate Data
 - Data Quality Metrics
 - Master Data Management
- ❖ **Workshop:**
 - Data Quality Assessment Exercise
- ❖ **Module 5: Advanced Data Analytics Techniques**
 - Descriptive Analytics
 - Diagnostic Analytics
 - Predictive Analytics
 - Prescriptive Analytics
 - Root Cause Analysis
 - Trend Analysis
 - Correlation and Regression Analysis
- ❖ **Practical Exercise:**
 - Business Performance Analysis
- ❖ **Module 6: KPI Development and Performance Measurement**
 - Designing Effective KPIs
 - Leading and Lagging Indicators
 - Balanced Scorecard Integration
 - Performance Dashboards
 - Strategic Performance Monitoring
 - KPI Governance
- ❖ **Workshop:**
 - KPI Development Framework

DAY THREE:

DATA VISUALIZATION AND DASHBOARD DEVELOPMENT

- ❖ **Module 7: Data Visualization Best Practices**
 - Principles of Effective Data Visualization
 - Visual Storytelling
 - Choosing Appropriate Charts and Graphs
 - Avoiding Misleading Visualizations
 - Executive Reporting Techniques
- ❖ **Exercise:**
 - Visualization Critique Workshop
- ❖ **Module 8: Dashboard Design and Development**
 - Dashboard Architecture
 - Executive Dashboards
 - Operational Dashboards
 - Tactical Dashboards

- Real-Time Monitoring Dashboards
- User-Centric Dashboard Design
- ❖ **Workshop:**
 - Building Dashboard Wireframes
- ❖ **Module 9: Business Intelligence Tools Overview**
 - Microsoft Power BI
 - Tableau
 - Qlik Sense
 - SAP Analytics Cloud
 - Oracle Analytics
 - Google Looker Studio
 - Self-Service BI Platforms
- ❖ **Demonstration:**
 - Dashboard Development Examples

DAY FOUR:

PREDICTIVE ANALYTICS AND BUSINESS FORECASTING

- ❖ **Module 10: Predictive Analytics Fundamentals**
 - Predictive Modeling Concepts
 - Forecasting Techniques
 - Scenario Analysis
 - Risk-Based Forecasting
 - Demand Forecasting
 - Financial Forecasting
- ❖ **Exercise:**
 - Forecasting Business Performance
- ❖ **Module 11: Statistical Analysis for Business Intelligence**
 - Statistical Thinking for Managers
 - Probability Concepts
 - Hypothesis Testing
 - Confidence Intervals
 - Variance Analysis
 - Time-Series Analysis
- ❖ **Workshop:**
 - Applying Statistical Analysis to Business Data
- ❖ **Module 12: Advanced Analytics Applications**
 - Customer Analytics
 - Marketing Analytics
 - Financial Analytics
 - Supply Chain Analytics
 - HR Analytics
 - Operational Analytics
- ❖ **Case Study:**
 - Cross-Functional Analytics Applications

DAY FIVE:

DATA GOVERNANCE, AI INTEGRATION AND FUTURE TRENDS

❖ **Module 13: Data Governance and Analytics Risk Management**

- Data Governance Frameworks
- Data Ownership and Stewardship
- Data Privacy Regulations
- Information Security Considerations
- Analytics Risk Management
- Ethical Use of Data

❖ **Workshop:**

- Developing a Data Governance Framework

❖ **Module 14: Artificial Intelligence and Business Intelligence**

- AI-Powered Analytics
- Machine Learning Fundamentals
- Generative AI in Business Intelligence
- Automated Insights Generation
- Intelligent Decision Support Systems
- AI Governance and Ethics

❖ **Demonstration:**

- AI-Enhanced Analytics Use Cases

❖ **Module 15: Future of Business Intelligence & Analytics**

- Emerging BI Technologies
- Real-Time Analytics
- Big Data Analytics
- Cloud-Based Analytics Platforms
- Augmented Analytics
- Data Democratization
- Building a Future Analytics Roadmap

❖ **Final Group Exercise:**

- Developing an Enterprise Analytics Transformation Plan

❖ **Course Conclusion**

❖ **POST-ASSESSMENT and EVALUATION**

Training Methodology:

This interactive training course includes the following training methodologies as a percentage of the total tuition hours:

- 30% Lectures, Concepts, Role Play
- 70% Workshops & Work Presentations, Techniques, Based on Case Studies & Practical Exercises, Gamification, Software & General Discussions
- Pre and Post Test

Training Certificate(s):

CMCT Internationally recognized certificate(s) will be issued to each participant who completed the course.

Training Fees:

USD\$ TBA - This rate includes participant's manual, hand-outs, buffet lunch, coffee/tea on arrival, morning & afternoon of each day.

Note: The 5% VAT (Value Added Tax), will be effective starting 01st of January 2018 as per the new regulation from the UAE Government. The VAT applies for all quotation both for local and abroad.

Training Timings:

Daily Timings:

07:45 - 08:00	Morning Coffee / Tea
08:00 - 10:00	First Session
10:00 - 10:20	Recess (Coffee/Tea/Snacks)
10:20 - 12:20	Second Session
12:20 - 13:00	Recess (Prayer Break & Lunch)
13:00 - 14:00	Last Session

For training registrations or in-house enquiries, please contact:

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