جامعة الفيصل
Alfaisal University

Target Audience:
Business Professionals

Certificate in Business & Data Analytics

This certificate program consists of three modules designed to provide a comprehensive understanding of business and data analytics using Power BI.

Each module includes both conceptual and practical components, progressively building skills from an introduction to an advanced level.

Module 01

Introduction to Business and Data Analytics

Module 1: Introduction to Business and Data Analytics

Duration: 15 contact hours

Overview:
This module provides a foundational understanding of data analytics, focusing on descriptive analytics. Participants will learn key concepts and gain hands-on experience with Power BI.

Objectives:
• Understand the fundamentals of business analytics.
• Learn the basics of data collection, cleaning, management, and visualization.
• Get hands-on experience with Power BI.
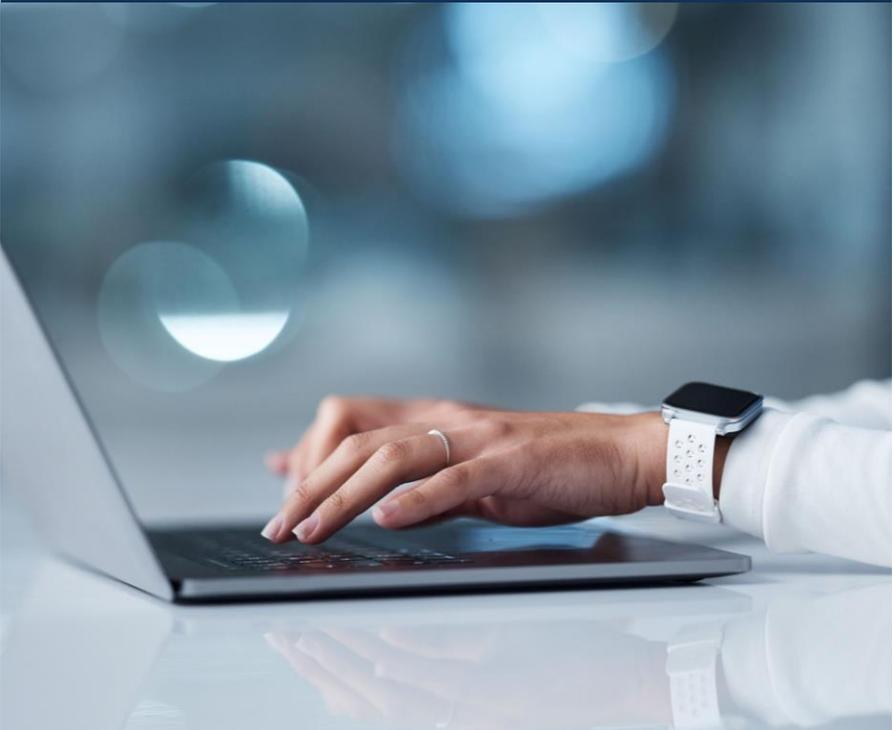
Content Outline:
1. Conceptual Part
• Overview of Business Analytics
• Types of analytics: Descriptive, Predictive, and Prescriptive.
• Sources and types of data: Structured vs. Unstructured
• Introduction to data collection methods
• Basics of data cleaning and preparation
• Introduction to data visualization
• Key metrics and KPIs in business

2. Practical Part
• Importing data into Power BI
• Basic data management with Power Query
• Basic visualizations (e.g., Bar, Line, Pie Charts)
• Creating simple interactive reports

Module 02

Intermediate Business and Data Analytics

Module 2: Intermediate Business and Data Analytics

⏱ Duration: 15 contact hours

Overview:

This module builds on the foundational knowledge from the introductory module, delving deeper into data management and more advanced visualizations and analytical techniques and practical applications using Power BI.

Objectives:

- Learn about data structure and modeling.
- Build on foundational knowledge to handle more complex data analysis tasks.
- Develop skills in advanced data visualization techniques.
- Apply analytics to solve real-world business problems.

Content Outline:

1. Conceptual Part
- Data modeling and relationships
- Advanced data management techniques
- Exploratory data analysis (EDA)
- Introduction to statistical analysis
- Business case studies and applications

2. Practical Part
Importing Data into Power BI
Data transformation with Power Query
Data modeling and DAX functions
Advanced Visuals (e.g., Tree Maps, Waterfall Charts)

Module 03

Advanced Business and Data Analytics Using Power BI

Module 3: Advanced Business and Data Analytics Using Power BI

🕐 **Duration: 30 contact hours**

Overview:
This course provides a comprehensive overview of predictive analytics, including regression analysis, time series forecasting, and data mining techniques. Participants will learn to utilize advanced Power BI features, integrate machine learning models, and evaluate predictive model performance using appropriate metrics.

Objectives:
• Learn about advanced analytical techniques.
• Create complex dashboards and reports.
• Develop the ability to lead data-driven decision-making processes.
• Develop predictive analytics skills.

Content Outline:

1. Conceptual Part
• Predictive Analytics
• Overview and applications
• Introduction to statistical methods
• Regression analysis
• Introduction to machine learning concepts
• Data Mining and Forecasting
• Techniques for data mining
• Time series analysis
• Forecasting models
• Classification models
• Case studies in advanced analytics

12. Practical Part
• Advanced Power BI Features
• Using Power BI for predictive analytics
• Implementing regression analysis in Power BI
• Time series forecasting with Power BI
• Classification and clustering with Power BI
• Introduction to Machine Learning with Power BI
• Integrating machine learning models in Power BI
• Building simple machine learning models
• Evaluating model performance

Summary

This certificate program equips business professionals with the necessary skills to effectively use data analytics tools and techniques in a business context. By progressing through the introductory, intermediate and advanced modules using Power BI, participants will gain a deep understanding of both conceptual and practical aspects of business and data analytics. They will cover descriptive and predictive analytics, with hands-on experience using this leading data analytics platform.

Contact us:

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