



# INTRODUCTION TO BUSINESS ANALYTICS

## OVERVIEW

The current business world is characterized by the explosion of data available to organizations. Many companies collect this data from different sources and under different structures. While many organizations do not know what to do with this potential gold mine of information, the most successful companies are those who are taking advantage of this data to make the right managerial decisions.

## COURSE DESCRIPTION AND MAIN OBJECTIVE

This course aims to provide businesses and managers with the necessary data analytics tools to describe, visualize, and make decisions using business data. Delegates will be exposed to various tools and techniques of making sense of information through the use of statistical techniques. This course serves as an introduction to business analytics.



## LEARNING OUTCOMES

After the completion of this course, delegates will be able to utilize appropriate tools and techniques to describe and visualize different types of data, determine the appropriate statistical and decision analysis technique to help in the decision-process, apply different techniques to data mining, apply statistical techniques in the modeling of business-related situations, and interpret and communicate different business analytics solutions in oral/written presentations.

## CONTENT

This course will address three themes:

**Theme 1: Dealing with Data:** Introduction to data culture, understanding descriptive statistics and data visualization. Case study practice: Introduction to Tableau/R GUI.

**Theme 2: Decision Making in Business Analytics:** An introduction to modeling uncertainty, types of random variables, the distribution of random variables and applications, and statistical inference in business (testing hypotheses). Case study practice.

**Theme 3: Modeling in Decision Making:** Linear Regression Models (simple & multiple regression models); modeling nonlinear relationships; Big Data and regression; prediction with regression models; time series analysis and time series patterns; forecasting accuracy and using moving average and exponential smoothing; Decomposition methods: Estimating seasonal effects. Case study practice: The best forecasting model to use.

## FACULTY MEMBER

Dr. Chafik Bouhaddioui is an Associate Professor of Statistics at UAE University. He obtained his Ph.D in 2002 from the University of Montreal in Canada. He worked as lecturer at Concordia University for 4 years. He has a rich experience in Applied Statistics in Finance in the private and public sector. He worked as an assistant researcher at the Finance Ministry (Revenue Canada). He also worked as Senior Analyst in the National Bank of Canada and developed statistical methods used in stock market forecasting. In 2004, he joined a team of researchers in a finance group at CIRANO in Canada to develop statistical tools and modules in finance and risk analysis. He has published several papers in well-known journals in the area of time series analysis and its applications in economics and finance.

## TARGET GROUP

This course is an introductory course to Business Analytics and is aimed at professionals and managers in different sector activities (government and private sector) with a need to improve their analytics skills.

## ADMISSION REQUIREMENTS

- It is assumed participants will be able to follow and participate discussions in English, and write assignments on Business Analytics.
- A good knowledge of Microsoft Excel is recommended.
- Tableau and/or R will be used for data visualization. However, delegates will be introduced to these tools.

## TEACHING METHODS

- Synchronous teaching on MS Teams.
- Class discussion, case studies, articles, and relevant videos.

## CERTIFICATE OPTIONS

Delegates can select to follow either one of the following two approaches:

- Obtain a "Certificate of Successful Completion" by demonstrating their knowledge, understanding and skills of the learning outcomes in practical assessments at the end of the course.
- Obtain a "Certificate of Attendance" and will not be required to complete any assessment.

## DATES

16 hours: TBC (4 days of 4 hours each)

Time: 09h00 – 13h00

## FEES

Certificate of Successful Completion: AED4800 (excluding VAT)

Certificate of Attendance: AED4000 (excluding VAT)

## ENQUIRIES

Johan Burger

E-mail: [johan.burger@uaeu.ac.ae](mailto:johan.burger@uaeu.ac.ae)

