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Certificate in Advanced Data Analysis

Use Data Analysis To Increase Your Confidence In Your Decision Making And Business Outcomes

On This Course, You Will:

1. **Increase** your awareness of techniques to provide quantitative support for management decisions
2. **Recognise** patterns in data and choose the best tools to analyse these
3. **Develop** your understanding of trends and sensitivity
4. **Gain** tools to make better business recommendations and decisions
5. **Build** your confidence in influencing business decisions through quantitative analysis

13 – 17 December 2020 | Dubai, UAE **3 for 2 offer**

4 – 8 April 2021 | Dubai, UAE

COURSE INFORMATION

About CPD

Established in 1996, The CPD Certification Service is the independent CPD accreditation centre working across all sectors, disciplines and further learning applications and supports policies of institutional and professional organisations globally.

CPD is the term used to describe the learning activities professionals engage in to develop and enhance their abilities and keep skills and knowledge up to date. This course is an accredited Continuing Professional Development (CPD) training which means it meets CPD standards and benchmarks. The learning value has been scrutinised to ensure integrity and quality.

You will need a laptop with Microsoft Excel installed and the ability to install some add-ins.

Course Requirements And Certificates

Delegates must meet two criteria to be eligible for an Informa CPD Certificate of Completion for a course:

1. Satisfactory attendance – delegates must attend all sessions of the course. Delegates who miss more than two hours of the course sessions will not be eligible to sit the course exam
2. Successful completion of the course assessment

Who Should Attend

This course is suitable for anyone who needs to use data analysis in their job role, including strategists, programme/ project managers, business analysts, business process managers, etc.

Course Overview

The modern organisational manager or specialist is expected to work with the masses of data available from organisation-wide IT systems and to be able to provide precise analysis and recommendations for senior managers/executives or to make decisions supported by facts.

To do this effectively means recognising patterns and analysing these using the best tools for the job, often in the form of computer spreadsheets and associated add-ins. This will involve recognising trends and what these mean for the organisation, as well as being able to predict the sensitivity of decisions to changes in attributes, for example the cost of fuel to a transportation form.

This engaging and interactive course will provide you with a rich toolset to help you make better decisions and recommendations, thus building your capability and confidence in using data analysis as part of your job role.

Course Methodology

This course will be highly interactive, with a mix of theory, including video clips and practical sessions. You will have the opportunity to share your experience, learn from others through group discussions and you will develop your skills through a series of individual and group exercises.

"The course was well-organised and the material consistently flowed smoothly between topics and days. I learnt a lot of new skills."
Document Controller, Emirates Nuclear Energy, UAE

Earn your Digital Certification and broadcast your achievement to your peers

Enhance your professional presence online - create a custom message and let everyone know why your accomplishment is important on all your social platforms

COURSE OUTLINE

Course timings: Registration will be at 08:00 on Day One. The course will commence at 08:30 and end at 14:30. There will be breaks for refreshments and lunch will be served at the end of the session.

Overview Of Data Analysis

- Data analysis in the modern organisation
- Data analysis, the difference between basic and advanced techniques
- Text analysis (predictive and semantic)
- Decision trees and their application
- Statistics and predictive analysis
- Neural nets and their application

Case Study Analysis – a typical organisational challenge and solution

Classic Tools And Techniques

- Statistics – the foundation
- Ranking as a business tool
- Incomplete data sets and bridging techniques
- Recognising and managing outliers in a data set
- The principles of statistical process control

Small Group Exercise – analyse a data set and answer a series of questions

Correlation And Dependence

- Association explained
- Correlation, a linear relationship
- Correlation, application and use
- Coefficients of correlation
- Cause and effect gotchas
- Fishbone analysis, to identify cause and effect

Exercise – case study analysis using correlation

"I obtained a lot of knowledge about analysis which is relatively new, where I have not seen much research elsewhere".
Analyst, Etisalat, UAE

Regression Analysis

- Simple/linear regression analysis and when to use it
- Multivariate regression analysis and when to use it
- Step-by-step regression analysis and when to use it
- Hierarchical regression and when to use it
- Regression analysis using Microsoft Excel®

Exercise – case study analysis using regression techniques

Sensitivity Analysis In Decision Making

- Mini case study – the impact of recession and unemployment on house prices in the UK
- Linear programming technique and application in decision making
- Understanding the objective function
- Scoping a problem and managing changing data
- Applying sensitivity analysis in the real world

Exercise – small group work, analysing the impact of the oil price on airline planning

Computer Aided Simulation

- Demonstration of project risk analysis, a Monte Carlo pricing tool
- The theory and practice of Monte Carlo simulation, and how it works
- Selecting the number of iterations to run
- Types of distribution curves, kurtosis and skews
- Monte Carlo add-ins for Microsoft Excel®

Exercise – individual task to produce a Monte Carlo analysis using a case study
NB: this exercise requires the use of a laptop with Microsoft Excel® and the ability to install a Monte Carlo add-in

COURSE OUTLINE (CONTINUED)

Cognitive Bias In Analysis And Decision Making
- Definition of cognitive bias
- Types of cognitive bias encountered in analysis and decision making
- The risks posed by cognitive bias to decision making
- Recognising cognitive bias
- Dealing with cognitive bias

Exercise – case study analysis, examining examples of cognitive organisations

Evaluating Alternatives
- Return on investment, return on capital employed and other useful indicators
- Benefit-cost analysis
- Payback, internal rate of return and net present value
- Quantitative risk analysis using Monte Carlo analysis
- Using the Goal Seek function in Microsoft Excel®

Exercise – small group exercise, recommend between alternative projects, using a company policy

Using Decision Trees
- Demonstration of using a decision tree
- Advantages of decision trees, visualisation of alternatives
- Criticisms and limitations of decision trees, potential bias
- Principles and mechanics of decision trees
- Tips and tricks for assembling decision trees

Exercise – create a complex decision tree diagram, using a case study

Using Expected Monetary Value (EMV)
- Principles of EMV
- Defining potential benefits and cost of failure
- Bias in EMV, factors to be aware of and how to reduce the risk
- Establishing the branches and probabilities
- Drawing the EMV diagram

Exercise – conduct a portfolio analysis and make recommendations about strategic choices, using decision tree analysis

"Truly engaging and importantly, it focused on current and modern technologies and models".
Accounting Analyst, Saudi Aramco OOC Group, KSA

Using Influence Diagrams
- Definition of influence diagrams
- Different types of influence diagrams
- How to create and draw influence diagrams
- Limitations of influence diagrams
- Sensitivity analysis

Exercise – small group work, building a strategy map and identifying strategic themes, using a case study

Value Stream Analysis
- Definition of value stream analysis
- The concepts of value adding time and waste time
- How to produce a value stream map
- Techniques to identify waste
- Techniques to increase value

Exercise – using a case study, build a value stream and identify ways of reducing waste and adding more value

Simulated Analysis Of Case Study
After four days of learning the advanced analysis tools, by a combination of theory blocks and exercise consolidation, Day Five will provide the opportunity to apply these in a sustained and coherent way, using a complex case study.

The delegates will be formed into groups and will then be briefed on a new and realistic case study, which will require analysis, in three parts.

The case study will provide the opportunity for delegates to consolidate their learning, in a safe environment.

After each of the three exercises, the course leader will provide a thorough debriefing and during the simulation, he will be available to provide focused support and coaching on key tools and techniques.

Review And Close
- Final questions and answers

Exercise – Ebbinghaus (memory retention) activity

Exercise – develop an action plan to implement

CERTIFICATE IN ADVANCED DATA ANALYSIS

Date	Fee Before 4 October 2020	Fee Before 8 November 2020	Final Fee
13 – 17 December 2020	US$ 4,695	US$ 5,195	US$ 5,695

Date	Fee Before 24 January 2021	Fee Before 28 February 2021	Final Fee
4 – 8 April 2021	US$ 4,695	US$ 5,195	US$ 5,695

Pricing excludes 5% VAT, charged where applicable.

DISCOUNTS AVAILABLE FOR 2 OR MORE PEOPLE

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Informa AllSecure

Informa AllSecure is Informa's approach to enhanced health and safety standards at our events following COVID-19.

From trainers to delegates, speakers, visitors and journalists, those who come to our events come to connect, learn, know more and do more business, effectively and safely.

The standards and practices that make up Informa AllSecure are designed to provide confidence that at every Informa event, we are striving to provide the highest standards of safety, hygiene, cleanliness and quality.

Read more about it here: www.informa-mea.com/allsecure/

WAYS TO REGISTER

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- Offers are valid on full price only
- Payment to be settled before start of the course to avail the offer
- Not applicable in conjunction with corporate discounts

All registrations are subject to our terms and conditions which are available at www.informa-mea.com/terms. Please read them as they include important information. By submitting your registration, you agree to be bound by the terms and conditions in full.

PAYMENTS

A confirmation letter and invoice will be sent upon receipt of your registration. Please note that full payment must be received prior to the event. Only those delegates whose fees have been paid in full will be admitted to the event.

CANCELLATION

If you are unable to attend, a replacement delegate will be welcomed in your place. If you cancel your registration 57 days or more before the event, you will receive a refund minus a 10%cancellation fee (plus VAT where applicable). Cancellation after 56 days before the event or if youfail to attend the event will be 100% payable. All cancellations must be sent by email to register-mea@informa.com marked for the attention of Customer Services Cancellation.

Due to unforeseen circumstances, Informa reserves the right to cancel the course, change the programme, alter the venue, speaker or topics.

For full details, please visit www.informa-mea.com

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