CINPAA | INTERNATIONAL COOPERATIVE FOR TRAINING & CONSULTING

سينبا | التعاونية الدولية للتدريب والاستشارات



Training programme:

Data Analysis Techniques

Delivered in several cities and dates



OUR INTERNATIONAL PARTNERS:

ISDE Law Business School High Performance Education
Higher Institute of Law and Business (ISDE)

Professional Development Institute
Professional Development Institute

Universidad Camilo José Cela
Camilo José Cela University

SEK EDUCATION GROUP

ISO 29993:2017 Learning services for non-formal education and training

ISO 9001:2015

Data Analysis Techniques

About the programme:

INTRODUCTION: Data Analysis Techniques training course adopts a problem-based learning approach, in which delegates are presented with a series of real numerical data analysis problems drawn from the widest possible range of applications - from engineering to finance and from logistics to quality control. Objectives : 1- To provide delegates with both an understanding and practical experience of a range of the more common analytical techniques and representation methods for numerical data 2- To give delegates the ability to recognize which types of analysis are best suited to particular types

Objectives:

Developing participants' skills, knowledge, values and professional approaches in:

a. To provide delegates with both an understanding and practical experience of a range of the more common analytical techniques and representation methods for numerical data 2- To give delegates the ability to recognize which types of analysis are best suited to particular types of problems 3- To give delegates sufficient background and theoretical knowledge to be able to judge when an applied technique will likely lead to incorrect conclusions 4- To provide delegates with a working vocabulary of analytical terms to enable them to converse with people who are experts in the areas of data analysis, statistics and probability, and to be able to read and comprehend common textbooks and journal articles in this field 5- To introduce some basic statistical methods and concepts 6- To explore the use of Excel 2010 or 2013 for data analysis and the capabilities of the Data Analysis Tool Pack.

b. Define a business question and select the data required to answer it.

c. Prepare a dataset by checking missing values and inconsistent records.

d. Compare descriptive measures to understand variation and distribution.

e. Select visualisations that communicate trends without overstating findings.

Target audience:

a. Data analysts preparing operational reports.

b. Planning and performance officers.

c. Managers interpreting quantitative evidence.

Daily programme:

• Day 1: Business questions, sampling and data quality

a. Defining a business question and selecting the data required to answer it

b. Data sampling, accuracy and completeness and their effect on conclusions

c. Preparing a dataset by checking missing values and inconsistent records

d. A working vocabulary of analytical and statistical terms

e. Workshop: cleaning an operational dataset and documenting the checks performed

f. Day output: cleaned dataset with data quality log

- **Day 2: Descriptive statistics and distributions**

a. Conventional statistics: measures of centre, spread and variation

b. Histograms and frequency of occurrence to understand distribution

c. Comparing descriptive measures across groups and periods

d. Recognising when a technique is likely to lead to incorrect conclusions

e. Workshop: describing variation and distribution in a performance dataset

f. Day output: descriptive statistics summary with charts

- **Day 3: Correlation, regression and curve fitting**

a. Data comparison and correlation analysis

b. Regression analysis and curve fitting for trends and relationships

c. Correlation versus causation in operational and policy data

d. Introduction to frequency analysis and the Fourier transform for periodic data

e. Workshop: fitting a regression model to explain variation in a service indicator

f. Day output: regression analysis note with interpretation limits

- **Day 4: Probability, uncertainty and testing differences**

a. Probability, confidence intervals, risk and uncertainty

b. Analysis of variance (ANOVA) to compare several groups

c. Selecting the type of analysis best suited to a particular problem

d. Basics of data mining and pattern discovery in large datasets

e. Case study: testing whether performance differs significantly between regional offices

f. Day output: ANOVA result and decision note

- **Day 5: Spreadsheet tools and communicating findings**

a. Pivot tables and the Excel Data Analysis Tool Pack for routine analysis

b. Dynamic spreadsheets and sensitivity analysis for what-if questions

c. Selecting visualisations that show trends without overstating findings

d. Writing an analytical summary that managers can act on

e. Workshop: building a dynamic spreadsheet model and presenting its findings

f. Day output: one-page analytical report with sensitivity analysis

Training methods and certificates:

Our programmes are built on modern pedagogy that combines theoretical knowledge with practical application, in line with participants' needs and the demands of the workplace. Methods include:

· **Interactive workshops:** analysis of real data and group discussions that strengthen practical understanding.

· **Case studies:** examples from international organisations that highlight real successes and challenges.

· **Realistic simulations:** participants train through professional scenarios that mirror real situations requiring decisions and situation management.

· **Advanced tools and technologies:** hands-on practice with up-to-date training software and tools suited to each

field.

Certificates:

On successful completion, participants receive a certificate issued by CINPAA, a training institute officially registered in the European Union, Spain and the United Kingdom.

CINPAA - Cooperative International for Training and Consulting

Our programmes are delivered within academic and professional partnerships, cooperation agreements and memoranda of understanding with a number of academic and professional institutions, including:

- **Camilo José Cela University - Spain**
- **ISDE - Law & Business School - International**
- **Professional Development Institute - United Kingdom**

These partnerships aim to exchange expertise, develop training content and raise programme quality in line with international best practice.

Kind regards,
International Programmes Department
"CINPAA" INTERNATIONAL COOPERATIVE FOR TRAINING & CONSULTING

Course details and registration

Course Details | Registration

Programme	**Data Analysis Techniques**	Course Title
Language	**English**	Course Language
Venue	**Several cities and dates – see the table below**	Venue
Financial offer	**Sent separately, according to the number of participants and the delivery conditions.**	Financial Offer

Registration and confirmation:

To register, please use one of the following:

a. Complete the programme request form on our website.

b. Or send an email from your training department.

c. Or a nomination letter from your organisation.

Send your confirmation by:

Email	info@cinpaa.org
WhatsApp	+34 635 867 686

Our team is ready to advise on accommodation and logistics before and during your stay.

Planned programme dates:

City	Dates
Cairo, Egypt	21 - 25 Dec 2026
Cairo, Egypt	01 - 05 Feb 2027
Madrid, Spain	03 - 07 May 2027
Barcelona, Spain	02 - 06 Aug 2027
London, United Kingdom	01 - 05 Nov 2027

The programme can be delivered in other cities and on other dates to suit your organisation, at the length you need. The cities are listed on the last page.

سينبا التعاونية الدولية للتدريب والاستشارات | CINPAA – International Cooperative for Training & Consulting

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Cities where we deliver our programmes:

This programme can be delivered in any of the following cities, and elsewhere on request.

Albania Tirana, Saranda	**Australia** Sydney	**Austria** Vienna, Hallstatt, Salzburg / Zell am See	**Azerbaijan** Baku
Bahrain Manama	**Belgium** Brussels, Bruges	**Bosnia and Herzegovina** Sarajevo	**Canada** Toronto, Montreal
China Hong Kong, Shanghai, Beijing, Guangzhou	**Croatia** Dubrovnik	**Cyprus** Nicosia, Limassol, Larnaca	**Czech Republic** Prague
Egypt Cairo, Sharm El Sheikh, Alexandria, Hurghada	**France** Paris	**Georgia** Tbilisi, Batumi	**Germany** Munich, Berlin, Düsseldorf, Frankfurt
Greece Athens, Rhodes	**Hungary** Budapest	**Indonesia** Bali, Jakarta	**Ireland** Dublin
Italy Rome, Florence, Milan, Venice, Como	**Japan** Tokyo	**Jordan** Amman, Aqaba	**Kuwait** Kuwait City
Malaysia Kuala Lumpur	**Maldives** Maldives	**Mauritius** Mauritius	**Montenegro** Budva, Kotor
Morocco Casablanca, Marrakech, Tangier, Rabat	**Netherlands** Amsterdam	**Oman** Muscat, Salalah	**Philippines** Manila
Poland Krakow, Warsaw	**Portugal** Lisbon, Porto	**Qatar** Doha	**Russia** Moscow
Saudi Arabia Riyadh, Jeddah, Dammam	**Serbia** Belgrade	**Slovenia** Ljubljana	**South Korea** Seoul
Spain Madrid, Barcelona, Valencia, Alicante, Benidorm, Malaga / Marbella, San Sebastian, Granada, Cordoba, Canary Islands, Seville, Bilbao	**Switzerland** Geneva, Luzern, Zurich, Interlaken, Zermatt, Lugano	**Thailand** Bangkok, Phuket	**Tunisia** Tunis
Turkey Istanbul, Antalya, Trabzon, Bursa, Izmir, Bodrum, Antakya (Hatay)	**United Arab Emirates** Dubai, Abu Dhabi	**United Kingdom** London, Edinburgh, Manchester, Birmingham	**United States** Miami, New York, Los Angeles, Washington