

Advanced Data

*Madrid (Spain)*

*2 - 6 December 2024*

UK Training

**PARTNER**



## Advanced Data

Code: IT28 From: 2 - 6 December 2024 City: Madrid (Spain) Fees: 4200 Pound

### Introduction

This course focuses on advanced analytical techniques that are routinely used in industry and academic research. Advanced analytics is a tool that can help you get more out of your data. Predictive analytics can use these clean sets and existing insights to extrapolate and make predictions and projections about future activity, trends, and consumer behaviors.

### Course Objectives of Advanced Data

- Estimation of basic models in R/ Python
- Approaches to dealing with missing data.
- Data reduction techniques

### Course Outlines of Advanced Data

#### Day 1

##### Principal components analysis

- Rescaling principal components
- Choosing the number of components
- Component scores

#### Day 2

##### Factor analysis

- Factor extraction and common factor analysis
- Factor rotation and factor scores

##### Item response theory models

- Latent trait models and item response function
- Logistic and normal IRT models and interpreting the IRT score scale

#### Day 3

##### Structural equation modeling and path models



- Path diagrams
- Structural equations & designing SEMs
- Confirmatory factor analysis
- Latent class models

#### Day 4

##### Clustering and cluster analysis, and association rules

- Classification in social sciences
- Hierarchical clustering; k-means clustering;
- Model-based clustering
- Visualization of clustering results

#### Day 5

##### Missing data

- Missing data generation and mechanisms
- Multiple imputations
- Pattern mixture models
- Data missing not at random
- Missing data in longitudinal studies





## Blackbird Training Cities

### Europe

izmir



Podgorica (Montenegro)



Stockholm (Sweden)



Lyon (France)



Copenhagen (Denmark)



Bordeaux (France)



Annecy (France)



Oslo (Norway)



Edinburgh (UK)



Glasgow (Scotland)



Malaga (Spain)



London (UK)



Istanbul (Turkey)



Amsterdam (Netherlands)



Düsseldorf (Germany)



Paris (France)



Barcelona (Spain)



Munich (Germany)



Geneva (Switzerland)



Prague (Czech)



Vienna (Austria)



Rome (Italy)



Brussels (Belgium)



Madrid (Spain)



Berlin (Germany)



Lisbon (Portugal)



Manchester (UK)



Milan (Italy)

### USA & Canada



Los Angeles (USA)



Florida (USA)



Online



Boston (USA)



Washington (USA)



Miami (USA)



New York (USA)



Toronto (Canada)



## Blackbird Training Cities

### Asia



Baku (Azerbaijan)



Maldives (Maldives)



Manila (Philippines)



Bali (Indonesia )



Bangkok (Thailand)



Beijing (China)



Moscow (Russia )  
(Malaysia)



Singapore (Singapore )



Sydney (Australia)



Tokyo (Japan)



Dubai (UAE)



Kuala Lumpur



Jakarta (Indonesia)

### Africa



Kigali (Rwanda)



Cape Town (South Africa)



Accra (Ghana)



Lagos (Nigeria)



Marrakesh (Marocco)



Nairobi (Kenya)



Cairo (Egypt)



Sharm El-Sheikh (Egypt)



Casablanca (Morocco)



Tunis (Tunisia)



## Blackbird Training Clients



UK Training  
**PARTNER**





## Blackbird Training Categories

### Management & Admin

Professional Skills  
Finance, Accounting, Budgeting  
Media & Public Relations  
Project Management  
Human Resources  
Audit & Quality Assurance  
Marketing, Sales, Customer Service  
Secretary & Admin  
Supply Chain & Logistics  
Management & Leadership  
Agile and Refinement

### Technical Courses

Hospital Management  
Public Sector  
Special Workshops  
Oil & Gas Engineering  
Telecom Engineering  
IT & IT Engineering  
Health & Safety  
Law and Contract Management  
Customs & Safety  
Aviation  
C-Suite Training



International House 185 Tower Bridge  
Road London SE1 2UF United Kingdom



+44 7401 1773 35  
+44 7480 775526



[training@blackbird-training.com](mailto:training@blackbird-training.com)



[www.blackbird-training.com](http://www.blackbird-training.com)

UK Training

**PARTNER**

