



London TDM

# Artificial Intelligence and Data Science Training Courses

**Course Venue:** United Arab Emirates - Dubai

**Course Date:** From 02 November 2025 To 06 November 2025

**Course Place:** Downtown Dubai

**Course Fees:** 5,000 USD

## Introduction

Data mining and knowledge discovery are crucial processes in transforming raw data into valuable insights that can drive decision-making in an organization. This 5-day professional course will provide participants with a comprehensive understanding of data mining techniques, tools, and methods for uncovering patterns and extracting meaningful information. Through a combination of theoretical concepts and practical applications, attendees will gain the skills needed to analyze complex datasets and derive actionable knowledge.

## Objectives

- Understand the fundamentals of data mining and knowledge discovery.
- Learn to apply various data mining techniques and tools.
- Develop the ability to analyze and interpret mined data effectively.
- Gain skills to solve real-world problems using data mining techniques.
- Master best practices in data mining to ensure data integrity and privacy.

## Course Outlines

### Day 1: Introduction to Data Mining

- Overview of data mining and its importance
- Key concepts and terminologies in data mining
- The data mining process and methodologies
- Introduction to data types and sources
- Software tools and platforms for data mining

### Day 2: Data Preprocessing

- Importance of data cleaning and preprocessing
- Techniques for handling missing and noisy data
- Data transformation and normalization methods
- Dimensionality reduction techniques
- Feature selection and extraction processes

### Day 3: Data Mining Techniques

- Classification methods and algorithms
- Clustering techniques and applications
- Association rule mining
- Regression analysis in data mining
- Practical exercises using data mining algorithms

### Day 4: Advanced Topics in Data Mining

- Text mining and web mining
- Sequential pattern mining
- Big data mining concepts
- Integrating data mining with machine learning

- Case studies of data mining in various industries

**Day 5: Data Mining Applications and Ethics**

- Real-world applications of data mining
- Data visualization techniques
- Ethics and privacy concerns in data mining
- Best practices for maintaining data security
- Course review and future trends in data mining