

# AI+ Business Intelligence™

**Duration:** 40 hours

## Course Overview

The AI+ Business Intelligence (BI) course provides a comprehensive five-day curriculum designed for professionals interested in leveraging AI and BI tools to enhance data-driven decision-making. The program covers fundamental AI and BI concepts, data preparation, machine learning, and advanced AI techniques like deep learning and generative AI. Participants will gain hands-on experience using Python, Power BI, Tableau, and other BI platforms, focusing on data visualization, statistical analysis, and predictive modeling. The course also includes practical applications of AI in real-world business scenarios, culminating in a capstone project.

## Course Prerequisites

- Basic Computer Skills: Familiarity with software applications.
- Open to All: Suitable for all expertise levels, with an interest in AI, ML, and BI.
- Foundational Data Concepts: Basic knowledge of data analysis (beneficial, not mandatory).

## Course Agenda

### Module 1: Introduction to AI and BI Fundamentals

- Overview of AI and BI Integration
- Core Concepts in Business Intelligence
- Data Analysis Process and AI's Role
- BI Trends and Challenges
- Case Study
- Hands-on Activity

### Module 2: Python for AI-Driven Business Intelligence

- Python Programming Fundamentals
- Advanced Python Libraries for BI
- Visualization with Python
- Hands-on Activity

### Module 3: Data Preparation and Feature Engineering with AI

- Data Collection Techniques
- Data Quality & Evaluation
- Advanced Data Preparation
- Hands-on Activity

### Module 4: Machine Learning (ML) for Business Intelligence

- ML Models for BI
- Hands-on Activity

### Module 5: Advanced AI and Generative AI for BI

- Deep Learning and Neural Networks for BI
- Generative AI for BI
- Hands-on Activity

#### **Module 6: Statistical Analysis with AI Tools**

- Statistical Analysis for BI
- Time Series Analysis
- Hands-on Activity

#### **Module 7: AI-Powered Business Intelligence Tools**

- AI in BI Platforms
- Power BI Essentials
- Tableau Essentials
- Hands-on Activity

#### **Module 8: Prompt Engineering for AI-Driven BI**

- Introduction to Prompt Engineering
- Crafting Effective Prompts
- Hands-on Activity

#### **Module 9: Communication Skills**

- Data Storytelling & Communication
- Solution Presentation

#### **Module 10: Capstone Project**

- Capstone Project 1
- Capstone Project 2
- Capstone Project 3