



# Analytics Essentials

ANI\_204d | On-Demand | Automation and Insights | ⚙️

Course Duration: 4 hours

In the age of Automation and AI, statistics are critical in developing automation capabilities or just understanding how AI works. This course provides an overview of statistics and analytics that are used within the telecom industry. Statistics principles are explored from a definition, functional and specific uses perspective. It starts with an introduction to Data Science Fundamentals. The course concludes with uses within the telecom industry.

## Intended Audience

A high-level technical overview to personnel involved in product management, marketing, planning, design, engineering, and operating wireless (4G, 5G) and wireline access networks

## Objectives

After completing this course, the student will be able to:

- Understand Descriptive Analysis
- Understand Predictive Analytics
- Understand Linear Regression
- Understand Logistic Regression
- Explore Usecases in telecom

## Course Prerequisites

[Welcome to AI](#)  
[Welcome to Machine Learning](#)

## Outline

1. Big picture of Analytics
  - 1.1 Types of Analytics
  - 1.2 Landscape of Analytics
2. Descriptive Analytics
  - 2.1 Concepts of Descriptive Analytics
  - 2.2 Demonstration Usecase
3. Predictive Analytics
  - 3.1 Predictive Analytics a subset of AIExercise: Review Questions
4. Getting Started with Data
  - 4.1 Data Types
  - 4.2 Measures of Central Tendency
  - 4.3 Measures of Dispersion
  - 4.4 Correlation
  - 4.5 Skew/Symmetry
  - 4.6 Kurtosis
5. Data Terminology in Predictive Analytics
  - 5.1 Understand input and output for ML/DL modelsExercise: Review Questions
6. Process of Predictive Analytics
  - 6.1 Understand each step of the ProcessExercise: Review Questions
7. Visit Models

- 7.1 Taxonomy of Models  
Exercise: Review Questions
8. Linear Regression
  - 8.1 Understand How it worksExercise: Review Questions
9. Logistic Regression
  - 9.1 Understand How it worksExercise: Review Questions
10. Use Cases