

Essential Math for Data Analysis using Excel Online

Modality: Self-Paced Learning

Duration: 24 Hours

About this course:

This course is part of the Microsoft Professional Program in Data Analysis.

Starting with the absolute basics of math and data, this course builds up your analyst skills while removing the mathematical hurdles and barriers that often come with beginning to learn how to analyze data. This course is intended for anyone with the desire to do data analysis and who would like to learn the math behind it all in a simplified way, as well as for anyone who would like a thorough refresher on the essentials.

Learn how to handle different data types, understand mathematical notation, become proficient in handling data sets and summary statistics, and even get a sneak peek into how to be effective at making statistical inferences and predictions, all told in a way to maximize your understanding—so that afterward, you can be well on your way toward analyzing data in any field or discipline.

Course Objective:

In this course, you will learn how to:

- Handle data sets for analysis purposes
- Understand beginning mathematical notation
- Work with different types of data
- Summarize data with distributions and graphs
- Apply summary statistics to analyze and understand data sets
- Calculate business metrics and KPIs to derive business value from data sets
- Apply basic inferential math to data
- Use tools to forecast future trends in data

Audience:

- Data Analysts
- Mathematicians

Prerequisite:

- Basic excel proficiency

Course Outline:

Introduction Data and Variables

- Math and Data
- Types of Data
- Introduction Notation and Formulas

Summarizing Data with Distributions and Graphs

- Histogram Overview
- Skew
- Non-Normal Distributions
- Bar Graphs and Pie Charts

Summary Statistics

- Mode, Mean, Median
- SD vs IQR
- Proportions

Business Statistics

- Introduction KPIs
- Business KPIs

Introduction Inferential Math and Forecasting

- Forecasting Concepts
- T-Test Comparing Two Groups
- Time Series Forecasting

Final

- Final Exam
- Closing