

KOENIG SOLUTIONS • COURSE OUTLINE

Statistics and Probability Using Excel

Learn to apply probability concepts and statistical inference in Excel, from distributions to hypothesis testing.

8 Hours

DURATION

8

MODULES

52

TOPICS

COURSE OVERVIEW

Learn the concepts of Probability and statistics required for making business decisions. Learn important probability distributions such as Normal distribution, Poisson distribution, Exponential distribution, Binomial distribution etc. Conceptual and practical understanding of a Confidence Interval. Understand the z-statistic and the t-statistic. Learn how to perform Single Tail and Two Tail Hypothesis Tests. Understand the logic of Hypothesis Testing.

WHO THIS COURSE IS FOR

Anyone curious to master Probability and Statistics using Excel in a short span of time

Business Analysts/ Managers who want to expand on the current set of skills

LEARNING OBJECTIVES

- Explain basic laws of probability and calculate them in Excel
- Describe discrete and continuous probability distributions
- Apply binomial and Poisson distributions to practical problems
- Apply normal and exponential distributions using Excel
- Explain sampling methods and point estimation techniques
- Interpret confidence intervals for means and proportions
- Determine appropriate sample size for a study
- Apply hypothesis testing using z-statistic and t-statistic

8 Modules, 52 Topics

01

Introduction

TOPICS

Introduction · Create resource

02

Introduction to Probability

TOPICS

- Milestone
- Module introduction
- Basics of probability
- Excel Basics
- Calculating Probability in Excel - Part 1
- Calculating Probability in Excel - Part 2
- Important laws of probability
- Implementing laws of probability in Excel

03

Probability Distribution Concepts

TOPICS

- Concepts of probability distribution
- Measures of probability distribution in Excel
- Discrete vs continuous probability distribution
- Using probability distribution
- Google Search Settings
- Google Search Tools
- Search in Google by Image
- Google Search Mobile and Tablet App

04

Types of Discrete Probability Distribution

TOPICS

Discrete Uniform probability distribution · Discrete binomial probability distribution · Binomial - Practical session · Discrete Poisson probability distribution · Poisson - Practical session

05

Types of Continuous Probability Distribution

TOPICS

- Continuous probability distribution - Introduction
- Uniform continuous probability distribution
- Normal distribution
- Normal distribution - Practical session
- Exponential distribution
- Exponential distribution - Practical session

06

Statistical Interference

TOPICS

- Module Introduction
- Sampling and Types of Sampling
- Point Estimation
- Excel - How to do random sampling
- Excel - Point Estimation
- Sampling Distributions
- Excel - Demo of key results
- Interval Estimation
- Excel - Interval Estimation for mean
- Excel - Interval Estimation for proportion
- How to determine sample size?
- Sample case study

07

Hypothesis Testing

TOPICS

- What is hypothesis testing?
- Type 1 and Type 2 errors
- The process of hypothesis testing Part-1
- The process of hypothesis testing Part-2
- How to find the p-value?
- Excel - Statistical Formulas for T distribution
- Excel - Statistical Formulas for Z distribution
- Vaccination case study
- Exercise problem

08

Congratulations & About Your Certificate

TOPICS

The final milestone! · Bonus Lecture

WHAT IS INCLUDED

Everything You Need to Succeed

- Koenig course material for every module
- Delivery by certified instructors and subject matter experts
- Hands-on exercises throughout the course
- Course completion certificate from Koenig

ABOUT KOENIG

Who We Are

Established in 1993, Koenig Solutions is a globally recognised training provider with 35+ technology partnerships, 5,000+ training programmes and a network of certified instructors and subject matter experts, supporting individuals and enterprise teams worldwide.

FLEXIBLE DELIVERY

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Live Online Classes (ILO)

Fly-Me-A-Trainer (FMAT)

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✉ info@koenig-solutions.com