

**Course Overview:**

Develop specific knowledge and skills in data collection and analysis by learning scientific methodologies and using essential statistical measurements that will make your data meaningful, simple, and ready to report and make decisions upon. In addition, you will be able to use important functions in Excel and SPSS that are beneficial for data analysis and interpretation.

**Course Objective:**

- Understand the concept, fundamentals, and terminologies of statistics.
- Realize the difference between data and information.
- Collect necessary data using different tools and methods
- Prepare and structure a questionnaire that fulfills the customers' requirements.
- Simplify and summarize data using descriptive statistics
- Analyze data using formulas and data analysis function in Excel
- Define variables in SPSS and enter create data base
- Plot data on different types of charts using Excel.

**Course Outline:****Concept of Statistics & Importance**

- Types of data
- Sources of data
- Data collection techniques
- Data collection methods

**Sampling Techniques**

- Probability sampling
- Non-probability sampling
- Determination of sample size

**Questionnaire Design**

- Types of questions
- Types of measurement scales
- Testing a validity and reliability of questionnaire

**Introduction to (SPSS)**

- SPSS menu
- Data coding and entry
- Data tabulation and charting.

**Descriptive Statistics**

- Measures of central tendency
- Measures of dispersion
- Using Excel to apply descriptive statistics
- Using Excel to plot and draw data

**Regression and Correlation**

- Simple correlation analysis
- Simple linear regression analysis

**Forecasting**

- Methods of forecasting
- Simple moving average

**Training Language:**

Arabic - English

**Training Methodology:**

- Presentation & Slides
- Audio Visual Aids
- Interactive Discussion
- Participatory Exercise
- Action Learning
- Class Activities
- Case Studies
- Workshops
- Simulation

- Weighted moving average
- Determining the best forecasting method

**Who Should Attend:**

- Newly Hired Engineers looking for an introduction to the project management principles as laid out by Project Management Institute (PMI).