



Advanced Statistical Methods

... for Technicians, Engineers, Managers & Continuous Improvement Practitioners

Throughout the instructional process, candidates discover how to apply advanced statistical concepts in a scientific manner for solving critical manufacturing, engineering, service, administrative, and business process problems. The focus is on the in-depth understanding and application of statistical techniques and analysis.

Course Curriculum:

Since variation is inherent in all processes, we must seek to understand the relationships between the process inputs and its affect on product and service performance. Hypothesis testing is a statistical technique that may be used to investigate the cause and effect relationships among process variables in a Six Sigma improvement activity. In this course, learn how to design and test the significance between variables that are thought to have a cause and effect relationship.

This important course will enable you to walk away with an in-depth understanding of:

- ▲ Central Limit Theorem
- ▲ Sampling Theory
- ▲ Confidence Intervals
- ▲ Attribute Hypothesis Testing
 - ▶ One Sample Proportion Test
 - ▶ Two Sample Proportions Test
 - ▶ Contingency Table
- ▲ Variable Hypothesis Testing
 - ▶ 1 sample Chi-Square
 - ▶ 1 sample t-test
 - ▶ 2 sample t-test
 - ▶ Paired t-test
 - ▶ F-test for Variances
 - ▶ Burr Foster Test for Homogeneity of Variances
 - ▶ One-Way Analysis of Variance
- ▲ Nonparametric Hypothesis Testing
 - ▶ 1 Sample Sign Test
 - ▶ 2 Sample Mann Whitney U Test
 - ▶ Kruskal-Wallis Test

Highlights and Outcomes:

- ▲ Perform Hypothesis testing using variable, attribute or nonparametric data.
- ▲ Identify sources of variation & explain the cause and effect relationship.
- ▲ Interpret findings and suggest areas for improvement in the process.

Course Materials:

All materials are easy to follow, user friendly, and have been knowledgably prepared to communicate a complete understanding of the techniques and analysis employed. These materials will be a valuable reference in your future endeavors.

Participant's shall receive a Certificate of Completion.

Registration:

If you wish to attend this Six Sigma course you may register online at www.tkmg.org/ContactUs. Please fill out the Contact Us form with your specific request and we will contact you to discuss payment options and confirm your registration.

Program Specifications:

- ▲ **Audience** - Technicians, Engineers, Managers, & Continuous Improvement Practitioners
- ▲ **Length** - 5 Days
- ▲ **Delivery Process** - Classroom / Lecture with class participation
- ▲ **Materials** - Participant workbooks w/ examples & class exercises
- ▲ **Instructional Leader** - Knowledge Management Group Practitioner
- ▲ **Class Size** - 7 to 14 participants

About Us:

The Knowledge Management Group is an established & proven service organization that is an authority in the application of statistical methods and Six Sigma to improve business performance.

Contact Us:

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