



# Measurement System Analysis

## Course Outline



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## Program Overview

Measurement System Analysis, or commonly known as MSA, is an experimental and mathematical method of determining how much the variation within the measurement process contributes to overall process variability. This practice, while common to the practice of Lean and Six Sigma, has five parameters to investigate- bias, linearity, stability, repeatability and reproducibility.

This 2-day program is focused on the learning and application of concepts and techniques of MSA. Under this session, practice sessions and a discussion on common challenges encountered during implementation will be engaged in order to meet the essence of learning the technique.

## Duration

2-day program

## Learning Objectives

At the end of this training, participants will be able to:

- Understand the concept and key elements of a Measurement System Analysis
- Acquire the critical points in applying the technique through practice and application
- Implement the use of the technique to the current process improvement context and enhance the organization's current practice on MSA.

## Target Audience

- Process Improvement Specialists
- Quality Specialists/ Practitioners/ Managers

## Program Structure and Outline

This course is a combination of instructor-led lectures and group activities.

- Introduction
  - Background
  - A brief glance on Operational excellence
  - About MSA
- General Measurement System Guidelines
  - The Measurement process
  - Measurement Strategy and Planning
  - Measurement Source Development
  - Issues, Uncertainty and Problem Analysis
- General Concepts for Assessing Measurement Systems
  - Selecting/ Developing Test Procedures
  - Preparation for a Measurement System Study
  - Analysis of the Results
- Recommended Practices for Replicable Measurement Systems
  - Example test procedures
  - Variable Measurement system Study guidelines



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- Attribute Measurement Systems Study
- Other Measurement Concepts and Practices
  - Practices for Non-replicable Measurement Systems
  - Stability and Variability Studies
  - Recognizing the Effect of Excessive within-part variations
  - Average and Range Method- Additional treatment
  - Gage Performance Curve
  - Reducing Variation through Multiple readings
  - Pooled Standard Deviation approach to GRR

## Why Choose SAS Management Inc.

### We Deliver Results

SAS Management Inc. has consistently proven its capability to deliver and exceed our clients' expectations. We are the only PEOPLECERT® Accredited Training Organization (ATO) in the Philippines. Our pool of consultants and trainers are seasoned industry veterans who have above average qualifications and certifications such as Business Management, Process Improvement, and Organizational Development Programs.

### We Create Value

SAS Management Inc. believes in ensuring that our services meet the intended needs of our clients. To us, it is more than just providing training and consulting but rather ensuring that these are the things that our clients really need. This is why SAS Management Inc. is probably the only training provider that does a thorough needs assessment prior to providing a proposal. Our goal for every proposal is to CREATE VALUE for your organization.

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