

# Measurement Systems Analysis (MSA)/ Gage R&R

Online Course in MSA



After completing this course you will be able analyze your measurement systems to ensure that they are capable of achieving the **accuracy** and **precision** you need to effectively control your processes. You will also be able to identify, and correct, weaknesses in your measuring systems.

You will use **interactive simulations** of measuring instruments to carry out measurement system studies. This will give you the skill and confidence you need to apply Measurement Systems Analysis.

The course includes **unlimited individual email** support. You can use it to answer any questions you have on the material and discuss how you can apply to your measurement systems.

This course includes both attribute and variable measurements. It also covers the methods recommended for the ISO/ TS 16949 standard.

## Main Topics

- :: control chart methods
- :: repeatability and reproducibility
- :: formal Gage R & R studies
- :: using Minitab
- :: ANOVA method
- :: capability, bias, linearity, stability
- :: attribute studies; long and short methods

## Features

- :: **interactive** with simulations of real processes to give you hands-on experience
- :: **practical** with many exercises and case studies
- :: **comprehensive** with about 30 hours of in-depth learning over a period of up to 6 weeks
- :: **flexible** with self-paced study and access from anywhere at any time
- :: **email support** to clarify any issues, answer any questions, and review case studies
- :: **effective** in developing skills you can apply immediately

## Course Requirements

- :: PC or Mac running a recent browser
- :: Microsoft Excel 97 or higher
- :: **optional** - Minitab (free evaluation copy is available from [www.minitab.com](http://www.minitab.com))

## Our Students Say



**Albert Perrin**  
Engineer, Canada

"The course changed my thinking on measurement and experimentation. I have done dozens of Designed Experiments where a tremendous analysis of data was done while the measurement systems were not checked at all. Now I have much better awareness of all aspects of measurement and correction."

### David Phillips, Engineer, ASQ CQE and CSSBB

"After completing the MSA course I have a better understanding of linearity and bias, and how to use those results. I have performed attribute MSA before, but now I know WHY it works which will help me "sell" it to others."



Glen Netherwood  
MiC Quality

## Who Should Enroll

- :: Quality Engineers and Managers
- :: Quality Coordinators and Technicians
- :: Manufacturing Engineers
- :: Quality Chemists and Scientists
- :: ASQ CSSBB and CQE Aspirants
- :: Six Sigma Green Belts and Black Belts
- :: Master Black Belts

## Certification

- :: a **certificate of completion** if you work through over 80% of the course material
- :: **3 Recertification Units** (RUs) for your ASQ certification renewal

## ASQ Certification

Our **Measurement Systems Analysis** course will help to prepare you for the measurement systems analysis components in the **Certified Quality Engineer (CQE)** and the **Six Sigma Black Belt (SSBB)**

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