

Sampling System Problem Solving and Maintenance Training (SSM)

designed for sampling system technicians and maintenance personnel

Troubleshoot Your Sampling System in Two Days

If your job is maintaining a sampling system, you may not have the time or resources to come up to speed on the system. Achieving the results you need depends on deepening your understanding of the system, as well as fine-tuning the system for optimum performance.

You can eliminate mistakes in your sampling system. And you don't have to do it alone. Swagelok Training Maintenance Training (SSM) teaches fundamental and advanced practices in analytical instrumentation operation and maintenance, empowering you to maintain your sampling system with minimal error and greater system integrity.

Course Objectives

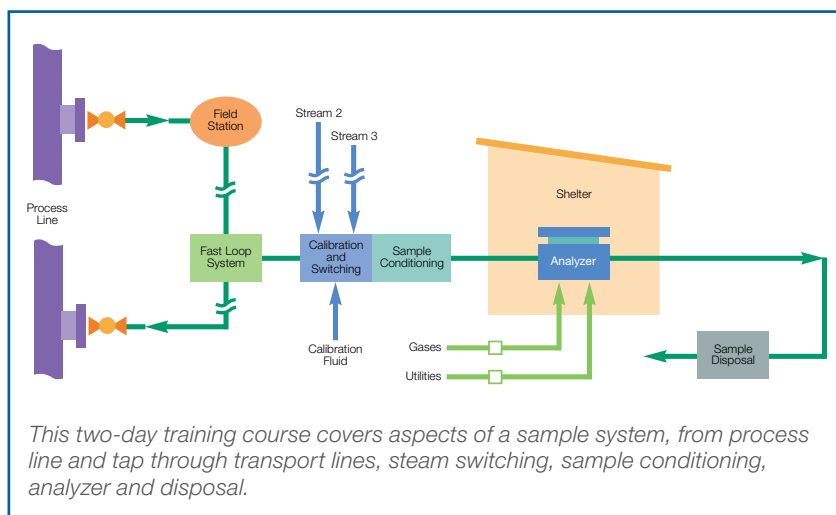
Here are a few examples of what you will learn:

- Sample system performance
- Diagnosing and fixing time delay problems
- Sample conditioning techniques

Sharpen Skills. Meet Demanding Requirements. Enroll Today.

Swagelok Southern California is offering [Sampling System Problem Solving and Maintenance Training \(SSM\)](#) in La Mirada,

California on **March 18th and 19th, 2025**. Class sizes are limited to 15 attendees to keep the learning atmosphere comfortable and effective. To reserve your seat or receive more information on tuition or additional course details, please contact your account manager at (800) 252-7087 or email jen.burrell@swagelok.com.





What will you learn?

This two-day training course covers aspects of a sample system, from process line and tap through transport lines, steam switching, sample conditioning, analyzer and disposal.

COURSE OBJECTIVES

Day 1

Fundamentals: Classwork and Basic Exercises

Performance of Sample Systems

- Maintenance techniques
- Sample compatibility with analyzer
- Time delay in sampling
- Mixing and contamination

Diagnosing and Fixing Time Delay Problems

- Sample transport time calculations for liquids and gases
- Gas compressibility and time delay

System Components

- Flow valve basics and the effects of water hammer
- Pressure measurement devices
- In-depth look at pressure regulators and common problems
- Pumps and temperature regulation

Day 2

Sample Conditioning Techniques

- Proper use of filters and coalescers
- Understanding and controlling phase change
- Liquid, vapor, and gas separation devices
- Design of field stations and fast loops
- Troubleshooting sample systems
- Group projects

About the Instructor

Garrett Cantu

Swagelok Field Engineer

Garrett worked with a mechanical engineering team designing metering systems and provers for major domestic and international oil and gas companies before joining Swagelok South Texas. Garrett has leveraged his previous experiences to support customers with a focus on custom assembly & fabrication, product selection, and providing technical support to companies in Texas. Garrett has been involved with the development of new service offerings such as leak detection services and evaluation and advisory services, while providing valuable support to a wide variety of Swagelok customers. He has completed the certifications required to offer both instructional and working expertise in the following areas:

- Compressed Gas Leak Detection
- Grab Sample Systems
- Mechanical Seal Support Systems
- Market expertise centered on Oil & Gas, Chemical & Petrochemical, API 682

Here's what graduates of this course have to say:

"Good for helping me understand how the theoretical relates to real-life applications."

"The broad scope of material covered helped me tie in many new concepts. I learned A LOT!"

"The class lectures were helpful. Using real life experiences and situations made it very interesting."