

## Course Description

This one-day training event will provide participants with an overview of current industry regulations and industry expectations for working in and monitoring a cleanroom environment. Basic principles surrounding proper aseptic behavior and technique will also be reviewed in class.

Utilizing good aseptic techniques and developing a robust monitoring program are critical to maintaining classified space status. The day will culminate with a discussion of environmental monitoring, including considerations for developing a monitoring program and best practices for sampling, data trending, and tracking the effectiveness of the monitoring program.

**Note:** Coffee, water, drinks, snacks, and lunch will be provided for on-site training.

Time	Agenda
9:00 – 9:15 AM	Welcome & Introductions
9:15 – 10:45 AM	The Origin and Importance of cGMP
10:45 – 11:00 AM	Break
11:00 – 12:00 PM	Overview of cGDocP and Data Integrity
12:00 – 1:00 PM	Lunch
1:00 – 1:45 PM	Contamination Control
1:45 – 2:45 PM	Aseptic Behavior and Techniques
2:45 – 3:00 PM	Break
3:00 – 4:30 PM	Environmental Monitoring (EM) Overview
4:30 – 5:00 PM	Questions and Wrap-Up

## Module

## Learning Objectives

### The Origin and Importance of cGMP

- Define GMP and review the historical cases that led to current regulations
- Discuss the Code of Federal Regulations (CFR) and consequences of non-compliance
- Review cGMP violations and US FDA 483's / Warning Letters pertaining to GMP violations
- Discuss Quality Systems and how they align with GMP regulations / requirements

### Overview of cGDocP and Data Integrity

- Define GDocP and the importance of compliance
- Discuss and distinguish types of documents found in a GMP environment
- Identify requirements for record keeping, including entering and correcting data
- Review data integrity importance and the data life cycle
- Define ALCOA+ principles and application to both paper and electronic records
- Discuss significant data integrity issues
- Distinguish electronic signature and records as well as the importance of audit trails
- Review controls to minimize DI issues

### Contamination Control

- Define contamination and distinguish the different types (i.e., viable, non-viable, cross contamination)
- Discuss sources of contamination and factors of microbial growth
- Review the history of cleanrooms and classifications
- Describe the methods to minimize contamination through engineering, procedural, and behavioral controls

### Aseptic Behavior and Techniques

- Explain the basic differences between aseptic processing and terminal sterilization
- Distinguish between isolation technologies and open vs. closed systems
- Discuss the importance of proper health and hygiene practices for personnel who work in cleanrooms
- Review key cleanroom behaviors utilized to prevent contamination
- Discuss key principles of aseptic technique including critical areas and surfaces, first air rule, aseptic connections, and working with pipettes

### Environmental Monitoring (EM) Overview

- Define regulatory expectations of an EM program
- Discuss the development of a sampling plan (i.e., number of samples required based on room size and room classification) beginning with Environmental Monitoring Performance Qualifications (EMPQ)
- Review considerations for selecting media, defining incubation parameters, and performing growth proficiency testing (GPT)
- Discuss the importance of a robust data set in an EM program and the expectations for data trending
- Review and demonstrate different methods of sampling (particulate readers, air samplers, contact/settle plates) and sampling best practices