



**Sterile Compounding Boot Camp® Live Training Series**  
**Best Practices for Environmental Monitoring**  
**Certificate Program for Environmental Monitoring and Reading Media**

**Day 1**

<b>Time</b>	<b>Description of Session</b>	<b>Learning Objectives (for CE Sessions)</b>
8:00–9:00 AM	<i>Housekeeping and Welcome Exercise</i>	
9:00–10:30 AM	General Concepts of Environmental Monitoring (EM)	<ul style="list-style-type: none"> <li>• Summarize the importance of having a robust environmental monitoring program.</li> <li>• Discuss the limitations of EM and how those affect program design.</li> <li>• Identify and source applicable guidance documents.</li> <li>• Select the appropriate sampling media based on pharmacy needs.</li> <li>• Critique media manufacturers to identify those that provide reputable products.</li> <li>• Describe why a pharmacy would need to perform growth promotion testing.</li> </ul>
10:30–10:45 AM	<i>Break</i>	
10:45–Noon	Creating an Effective and Compliant Environmental Monitoring Program	<ul style="list-style-type: none"> <li>• List the key elements of an environmental monitoring program.</li> <li>• Differentiate between required and best practice components of an EM program.</li> <li>• Identify the standard operating procedures (SOPs) and forms necessary to document the process.</li> </ul>
Noon–12:45 PM	<i>Lunch</i>	
12:45–1:45 PM	Developing a Sampling Plan	<ul style="list-style-type: none"> <li>• Select sampling locations that will provide valuable data for making decisions that affect compounding operations.</li> <li>• Describe why the ability to explain rationale used for determining sampling locations to surveyors and inspectors is essential to the success of the program.</li> <li>• Discriminate between ad hoc and trended samples.</li> </ul>
1:45–2:45 PM	Interactive Exercise: Developing a Sampling Plan	<ul style="list-style-type: none"> <li>• Identify a sampling plan that complies with USP 797 and incorporates best practices.</li> <li>• List the elements of user-friendly documentation used during the sampling session.</li> <li>• Describe why the development of the sampling plan should be a group effort.</li> </ul>
2:45–3:00 PM	<i>Break</i>	

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Day 1 (continued)

Time	Description of Session	Learning Objectives (for CE Sessions)
3:00–3:45 PM	Air and Surface Sampling Technique	<ul style="list-style-type: none"> <li>• Describe how to select the appropriate sampling equipment based on sterile compounding pharmacy's needs.</li> <li>• Identify aseptic techniques related to the handling, packaging, and use of media.</li> <li>• Summarize the steps for using a viable air sampler.</li> <li>• Discuss when and how to reuse opened media.</li> </ul>
3:45–4:45 PM	Interactive Exercise: Demonstration and Practice	<ul style="list-style-type: none"> <li>• Perform all elements of viable air and surface sampling.</li> <li>• Recognize proper sampling technique to avoid inadvertent contamination of the sampling media.</li> </ul>
4:45–5:00 PM	<i>Summary</i>	

**6 PM Group Dinner Hosted by CriticalPoint**

**Day 2**

Time	Description of Session	Learning Objectives (for CE Sessions)
8:00–8:15 AM	<i>Welcome and Introduction to the Day</i>	
8:15–9:15 AM	Interactive Exercise: Best Practice Technique for Donning Sterile Gloves	<ul style="list-style-type: none"> <li>• Determine proper glove sizing.</li> <li>• List the requirements for sterile gloves and packaging.</li> <li>• Master the nuances of donning sterile gloves.</li> </ul>
9:15–10:15 AM	Sampling Session Workflow	<ul style="list-style-type: none"> <li>• List and prepare all equipment, materials, and documentation needed for the sampling session.</li> <li>• List the steps to execute an EM session in the proper order to reduce the risk of contaminating samples and the compounding environment.</li> <li>• Explain the steps to prepare samples for incubation and laboratory submission.</li> </ul>
10:15–10:30 AM	<i>Break</i>	

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Day 2 (continued)

Time	Description of Session	Learning Objectives (for CE Sessions)
10:30 AM–12:30 PM	Interactive Exercise: Sampling Session Workflow	<ul style="list-style-type: none"> <li>• Discuss how to prepare media, equipment, and other components for entry to the controlled environments.</li> <li>• Describe best practice garbing.</li> <li>• List sampling session workflow for a sterile compounding pharmacy.</li> <li>• Identify where to place the air sampler in relation to the direct compounding area (DCA), pass-throughs, equipment, and people.</li> </ul>
12:30–1:15 PM	<i>Lunch</i>	
1:15–2:45 PM	Incubation and Reading Samples	<ul style="list-style-type: none"> <li>• List appropriate times and temperatures for sample incubation.</li> <li>• Identify a sterile compounding pharmacy’s ability to incubate and read samples in-house.</li> <li>• Distinguish between samples that require further evaluation and identification by a laboratory.</li> <li>• Request the appropriate testing for samples that require identification to the genus level.</li> <li>• Discuss the process for counting colonies recovered during the viable sampling session.</li> </ul>
2:45–3:00 PM	<i>Break</i>	
3:00–4:30 PM	Interactive Exercise: Reading Media	<ul style="list-style-type: none"> <li>• Describe the steps to inspect and read samples correctly.</li> <li>• Recognize the different colony morphologies of microorganisms commonly found in the sterile compounding environment.</li> <li>• Determine when a sample’s count should be verified by another staff member.</li> </ul>
4:30–4:45 PM	<i>Summary</i>	

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**Day 3**

<b>Time</b>	<b>Description of Session</b>	<b>Learning Objectives (for CE Sessions)</b>
8:00–8:15 AM	<i>Welcome and Introduction to the Day</i>	
8:15–9:00 AM	Choosing a Laboratory	<ul style="list-style-type: none"> <li>• List the characteristics of a laboratory to ensure testing meets USP 797 requirements.</li> <li>• Identify common microbiology terms that will allow you to confidently discuss testing and results with the laboratory.</li> <li>• Recognize the essential components of a testing report.</li> </ul>
9:00–10:00 AM	Interactive Exercise: Review and Analysis of Laboratory Reports	<ul style="list-style-type: none"> <li>• Evaluate laboratory reports for missing and incorrect information.</li> <li>• Interpret laboratory results to determine if they are acceptable, and identify next steps in the event there is an exceeded action level.</li> </ul>
10:00–10:15 AM	<i>Break</i>	
10:15–11:00 AM	Trending Environmental Monitoring Data	<ul style="list-style-type: none"> <li>• Define trending as it relates to environmental monitoring in a sterile compounding pharmacy.</li> <li>• Discuss the importance of analyzing microbial trends over time.</li> <li>• Identify a meaningful trending program that incorporates a variety of techniques, including the use of recovery rates.</li> </ul>
11:00 AM–12:15 PM	Investigation and Remediation	<ul style="list-style-type: none"> <li>• Discuss investigation tools and remediation actions that can be applied to the sterile compounding environment.</li> <li>• Determine the significance of the types of organisms recovered.</li> <li>• Evaluate the report results to determine the proper remediation actions.</li> </ul>
12:15–1:00 PM	<i>Lunch</i>	
1:00–4:00 PM	Interactive Exercise: Environmental Sampling Practice Session (1 hour CE)	<ul style="list-style-type: none"> <li>• Prepare all equipment, materials, and documentation needed for the session.</li> <li>• Execute an environmental monitoring session.</li> <li>• Describe the steps to prepare samples for incubation and laboratory submission.</li> </ul>
4:00–4:15 PM	<i>Summary</i>	

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**Day 4**

Time	Description of Session	Learning Objectives (for CE Sessions)
8:00–8:15 AM	<i>Welcome and Introduction to the Day</i>	
8:15 AM–Noon	Competency Testing: (No CE) 1. Hand hygiene and garbing with gloved fingertip sampling 2. Environmental sampling competency 3. Reading media competency	<ul style="list-style-type: none"> <li>• Successfully perform hand hygiene, garbing, and one instance of “initial” gloved fingertip sampling as well as the hand hygiene and garbing competency.</li> <li>• Successfully execute an abbreviated environmental monitoring session using proper sampling technique.</li> <li>• Successfully count environmental monitoring samples.</li> </ul>
Noon–1:00 PM	<i>Lunch</i>	

**Total CE: 18.25 hours**