

# Environmental Monitoring and Aseptic Techniques

## Course Agenda

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### Day 1: 8:00 am – 5:00 pm

8:00 a.m.	INTRODUCTION
8:15 a.m.	SESSION 1: INTRODUCTION TO MICROORGANISMS AND CONCERNS IN THE FOOD PROCESSING ENVIRONMENT <ul style="list-style-type: none"><li>• <i>Introduction to microorganisms in foods</i></li><li>• <i>General characteristics</i></li><li>• <i>Factors influencing growth of microorganisms: The basics</i></li><li>• <i>Roles in food production</i></li></ul>
9:45 a.m.	<b>BREAK</b>
10:00 a.m.	<b>SESSION 2: INTRODUCTION TO ENVIRONMENTAL MONITORING</b> <ul style="list-style-type: none"><li>• Environmental monitoring</li><li>• Growth niches and biofilms</li><li>• Zone concept</li><li>• Target analytes</li></ul>
11:15 a.m.	<b>ACTIVITY PART 1 (investigation, problems, identification) and BRIEFINGS</b>
12:00 a.m.	<b>LUNCH</b>
1:00 p.m.	<b>SESSION 3: DESIGNING A COMPREHENSIVE ENVIRONMENTAL MONITORING PROGRAM</b> <ul style="list-style-type: none"><li>• Management Commitment and Responsibility</li><li>• Determination of need</li><li>• Risk evaluation</li><li>• Sampling plan</li></ul>
2:15 p.m.	<b>BREAK</b>
2:30 p.m.	<b>SESSION 3 (continued)</b>
3:15 p.m.	<b>SESSION 4: SAMPLING: TRAINING OF PERSONNEL &amp; SAMPLING METHODS</b> <ul style="list-style-type: none"><li>• Definitions</li><li>• Training of sampling personnel</li><li>• Sampling tools and techniques</li><li>• Sample integrity</li><li>• Transportation of samples</li><li>• Test methodology</li></ul>
5:00 p.m.	<b>ADJOURN FOR THE DAY</b>

**Day 2: 8:00 am – 5:00 pm**

<b>8:00 a.m.</b>	<b>SESSION 5: ROOT CAUSE ANALYSIS CONCEPTS SPECIFIC TO EMP</b> <ul style="list-style-type: none"><li>• Definitions and background</li><li>• Regulatory issues</li><li>• Common mistakes</li><li>• Data use</li></ul>
<b>9:00 a.m.</b>	<b>BREAK</b>
<b>9:15 a.m.</b>	<b>SESSION 6: DATA MANAGEMENT AND MAINTENANCE OF AN ENVIRONMENTAL MONITORING PROGRAM</b> <ul style="list-style-type: none"><li>• Program management</li><li>• Data management</li><li>• Tools</li><li>• Communication</li></ul>
<b>10:15 a.m.</b>	<b>BREAK</b>
<b>10:30 a.m.</b>	<b>ACTIVITY PART 2 (data interpretation, next steps) and BRIEFINGS</b>
<b>11:30 a.m.</b>	<b>GENERAL DISCUSSION/SHARING OF EVENTS/MISCELLANEOUS TOPICS</b>
<b>12:00 p.m.</b>	<b>LUNCH</b>
<b>1:00 p.m.</b>	<b>SESSION 7: RESPONDING TO A POSITIVE RESULT IN ENVIRONMENTAL MONITORING</b> <ul style="list-style-type: none"><li>• Terms</li><li>• Planning and preparation</li><li>• Responses</li><li>• Investigational process</li><li>• Record keeping</li></ul>
<b>2:15 p.m.</b>	<b>BREAK</b>
<b>2:30 p.m.</b>	<b>SESSION 8: SANITATION VERIFICATION</b> <ul style="list-style-type: none"><li>• Cleaning and sanitation</li><li>• Validation and verification</li><li>• Best practices</li></ul>
<b>3:00 p.m.</b>	<b>SESSION 9: FDA Guidance for Industry to Control Listeria monocytogenes in RTE Foods</b> <ul style="list-style-type: none"><li>• Overview</li><li>• Environmental monitoring aspects</li><li>• Example</li><li>• Resources</li></ul>

