

## Dairy 101 Course Agenda

Day 1: 8am – 5pm Central	
8:00 am	Attendance, Course Requirements, etc.
Session 1	Introduction
Session 2	Dairy 101 Basics <ul style="list-style-type: none"> <li>• Composition/Properties of Milk Equals the Complexities of Dairy Chemistry</li> <li>• Quality From the Cow to the Consumer</li> <li>• Exercise – Group Meet and Greet</li> </ul>
Break	
Session 3	Dairy Microbiology <ul style="list-style-type: none"> <li>• Recalls</li> <li>• Basic Food Microbiology</li> <li>• Foodborne Infections</li> </ul>
Lunch	
	Continue Session 3 <ul style="list-style-type: none"> <li>• Foodborne Intoxications</li> <li>• Beneficial Bacteria in Dairy Foods: The Good</li> <li>• Exercise - Introduction to Case Study</li> </ul>
Break	
Session 4	Sensory Evaluation of Dairy Products <ul style="list-style-type: none"> <li>• Off-flavors and Flavor Defects</li> <li>• Sensory Evaluation</li> <li>• 15 min break to retrieve products from fridge (take ice cream out to thaw a little)</li> <li>• Exercise – Students will need to have the following two products:               <ul style="list-style-type: none"> <li>○ Ice cream with inclusion (for example mint chocolate chip or butter pecan)</li> <li>○ Fluid milk (2% or whole)</li> </ul> </li> </ul>
5:00 pm	Adjourn Day 1

Day 2: 8am – 5pm Central	
8:00 am	Recap Day 1, Questions, Attendance
Session 5	Pasteurization/Processing <ul style="list-style-type: none"> <li>• History of Pasteurization</li> <li>• High Temperature Short Time (HTST)</li> <li>• (Break)</li> <li>• Higher-Heat Shorter Time Pasteurization (HHST) and Ultra Pasteurization (UHT and ESL)</li> <li>• Exercise – Case Study</li> </ul>
Lunch	
Session 6	Dairy Sanitation <ul style="list-style-type: none"> <li>• Chemistry of Cleaning</li> <li>• Sanitizing</li> <li>• (Break)</li> <li>• CIP, COP, and Manual Cleaning</li> <li>• Verification/Validation</li> <li>• Exercise – Continue Case Study</li> </ul>
5:00 pm	Adjourn Day 2

Day 3: 8am – 12pm Central	
8:00 am	Case Study Instructions for Final Group Exercise
Session 7	Losses and Shrink in the Dairy Plant <ul style="list-style-type: none"> <li>• Material Loss Control Identifying Product Shrink</li> <li>• Exercise - Continue with case study</li> </ul>
Break	
Session 8	Regulatory Requirements <ul style="list-style-type: none"> <li>• HACCP</li> <li>• FSMA</li> <li>• PMO</li> </ul>
	Group Presentations
	Wrap-Up Course Surveys and Certificates
12:00 pm	Adjourn

\*\*\*coffee and lunch breaks included and taken at the discretion of the instructor