



Short-Course **April 7-8, 2026**

Advanced Unit Operations in Dairy Processing

Location: Dairy Products Technology Center, Cal Poly, San Luis Obispo

This workshop focuses on the fundamentals and building blocks of dairy processing. Hands-on demonstrations in the pilot plant, equipment displays/demos. No pre-requisites needed, open to all dairy processing staff.

Instructors: Cal Poly faculty and staff, industry representatives, equipment and process suppliers, expert consultants. **DRAFT PROGRAM – ALL SPEAKERS TO BE CONFIRMED (INVITED)**

Individuals \$450, Discounted: 2 or more from same company \$400, Students \$200.

For more info: Samantha Bass slbass@calpoly.edu

Registration: <https://dairy.calpoly.edu/short-course-symposia>

Preferred Cal Poly rates available at area hotels.

Tuesday, April 7



8:00 Registration, continental breakfast available
8:30 **Welcome & Introduction**

Building Blocks & Fundamentals

8:45 **Milk Pricing, Dairy Economics Overview**
Peter Fredericks, CDFA

9:45 **Factors Impacting Milk Production & Quality**
Rob Diepersloot, Dairy Producer

10:30 **Break**

10:45 **Fundamentals of Milk composition, Significance for Processors, Product Standards**
Dr. B. Zaitoun, DPTC, Dr. P. Tong

11:45 **Unit Operations Part I: Receiving, Separation, Homogenization, Standardization.**
Dr. C. Licon, DPTC, Dr. P. Tong

12:30 **Lunch**

Unit Operations – Fluid Milks and Fresh Dairy

1:15 **Unit operations Part II: Concentration, Evaporation, Drying. Non-thermal treatments: UV light, HPP**
Creamery visit

2:20 **Fermentation – Hands-on in Pilot Plant (Part I)**
DPTC Team

2:45 **Break**

3:00 **Operations for Fluid Milk Processing: Aseptic processing, ESL, UHT – systems and their operation**
Jean-Pierre Berlan, Tetra Pak

4:15 **Sanitation in the Processing Plant**
Carl Garcia, Hydrite

5:15 **Group Picture**

5:30 **Cocktail hour and group dinner (location TBA)**



Wednesday, April 8



8:00 Coffee & continental breakfast available
8:30 **Recap from Day 1**

Unit Operations – Cheese, Proteins

8:45 **Membrane Separation, Fractionation: Equipment and Processes**
Daniel Murphy, Synder Filtration; John Goodman, Zwitter Co.

10:00 **Cheese Manufacturing Operations**
Dr. C. Licon, Cal Poly DPTC

10:30 **Break**

10:45 **Overview of Whey Processing Operations**
Iswandi Jarto, Hilmar

11:30 **Permeate processing innovation: Whey Permeate to Bioplastics**
Kelly Graff, UC Davis

12:00 **DPTC Pilot Plant Demonstration - Filtration**
Dr. C. Licon, Cal Poly DPTC

12:30 **Lunch**

Advanced Topics, Demos & Case Studies

1:15 **Pilot Plant Demonstrations (Part II) – Coagulation, Curds Handling**
(cheese, butter) - DPTC staff

2:30 **Break**

2:45 **Integration of Artificial Intelligence, Costs, Regulations in Decision-making – Case Studies, Q&A**
DPTC, Gary Germaine, Leprino Foods

4:00 **Certificates and evaluation**



Program co-organized with CMAA/CDIC, with partial funding and contributions from Dairy Management Inc., the USDA's Pacific Coast Coalition Dairy Business Innovation Initiative and, CMAA. Spring 2026. Program subject to change.

