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

8:30 Registration, continental breakfast available

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 -Creamery
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
Dr. C. Licon, DPTC, Dr. P. Tong
2:30 Break
2:45 **Operations for Fluid Milk Processing:** Aseptic processing, ESL, UHT – systems and their operation
Jean-Pierre Berlan, Tetra Pak
4:00 **Sanitation in the Processing Plant**
Carl Garcia, Hydrite
4:45 **Fermentation – Hands-on in Pilot Plant (Port I)**
5:30 *Cocktail hour and group dinner (location TBA)*

Wednesday, April 8

8:30 **Coffee, Continental Breakfast, 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 **Membrane separation and fractionation of whey streams and their co-products. Permeate processing innovation**
Iswandi Jarto, Hilmar; Kelly Graff, UC Davis
11:45 **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** (yogurt, cheese) - *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**

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