



Buttermaking & Fat Fundamentals

Short Course **September 24, 2025**, Cal Poly San Luis Obispo, Dairy Products Technology Center

Agenda

8:00 – 8:15	Welcome and introductions	Dr. Carmen Licon, Director, DPTC
8:15 – 9:45	Theoretical foundation: § Milk composition and fat chemistry § Separation and cream treatment § Temperature treatment and fat crystallization § Fermentation of cream (for cultured butter)	Dr. Baheeja Zaitoun, DPTC Staff
9:45-10:30	Equipment and technology: § Continuous vs batch churning systems § Equipment for continuous churning	Srinivasarao Bandla, Land O' Lakes
10:30	Break	
10:45-12:00	Butter production techniques: § Phase inversion § Buttermilk separation § Salt and additive incorporation § Packaging	Dr. Carmen Licon, Director, DPTC
12:00 – 12:30	Lunch, Tasting	
12:30 – 12:45	Pilot plant introduction	DPTC Staff
12:45 – 2:00	Hands-on activity I: Cream quality control § Fat content measurement § Sensory evaluation of cream § Small-batch butter production	Dimitri Genard, DPTC Staff
2:00-4:00	Hands-on activity II: Butter churning § Continuous churning equipment operation § Monitoring churning parameters § Butter molding and packaging	DPTC Staff
4:15 – 5:00	Sensory Evaluation, Butter Quality § Cream condition § Manufacturing Practices § Addressing body and texture, salting defects	DPTC Staff
5:00 – 5:30	Q&A, Certificates	Dr. Carmen Licon, Director, DPTC

Course Duration: 8 hours

Registration Cost: \$450/ individual, \$400 multiple, \$175 student/academic. Includes course, lunch, parking.



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

Learning Outcomes

- Comprehensive understanding of butter production processes
- Practical skills in cream and butter quality control
- Knowledge of modern butter production technologies

Course Description

The Butter Making & Milk Fat Fundamentals Short Course offers a thorough understanding of butter production, practical techniques, and regulatory knowledge. Participants will gain valuable hands-on experience while mastering industry standards and quality assurance practices.

Audience

This course is designed for food industry professionals, dairy production and quality control, entrepreneurs, distributors.

Need more information? Contact our staff!

Sam Bass slbass@calpoly.edu

The program is co-organized with CMAB/CDIC, with partial funding and contributions from Dairy Management Inc., the USDA's Pacific Coast Coalition Dairy Business Innovation Initiative and the California Milk Advisory Board.

Program as of September 3, 2025, subject to change.



CALIFORNIA DAIRY
INNOVATION
CENTER



CAL POLY
Dairy Products Technology Center

