



Buttermaking & Milk Fat Fundamentals

Short Course September 24th, 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: <ul style="list-style-type: none"> Milk composition and fat chemistry Separation and cream treatment Temperature treatment and fat crystallization Fermentation of cream (for cultured butter) 	Dr. Baheejah Zaitoun, CalPoly DPTC
9:45-10:30	Equipment and technology: <ul style="list-style-type: none"> Continuous vs batch churning systems Equipment for continuous churning 	Srinivasarao Bandla, Land O' Lakes
10:30	Break	
10:45-12:00	Butter production techniques: <ul style="list-style-type: none"> Phase inversion Buttermilk separation Salt and additive incorporation Packaging 	Srinivasarao Bandla, Land O' Lakes
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 <ul style="list-style-type: none"> 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 <ul style="list-style-type: none"> Continuous churning equipment operation Monitoring churning parameters Butter molding and packaging 	Dr. Vincent Yeung, CalPoly Faculty
4:15 – 5:00	Sensory Evaluation, Butter Quality <ul style="list-style-type: none"> Cream condition Manufacturing Practices Addressing body and texture, salting defects 	Dr. Vincent Yeung
5:00 – 5:30	Q&A, Certificates	Dr. Carmen Licon, Director, DPTC

Registration Cost:

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

Registration at:

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



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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.

Course Duration: 8 hours

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

Objective: Comprehensive understanding of industrial butter production processes, techniques and quality control.

Learning Outcomes

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

Need more information? Contact our staff! Sam Bass
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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.

