

Dairy Foods Extension

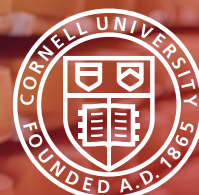


COURSE CATALOG

*Providing cutting-edge research, education,
and support to the dairy industry in New York
State and beyond.*

Cornell**CALS**
College of Agriculture and Life Sciences

20 26



Department of Food Science

The Department of Food Science at Cornell University is one of the premier programs worldwide for collaborative research and extension programing. Our faculty, staff, and students support cutting-edge research in chemistry, microbiology, engineering, biotechnology, nutrition, and physiology, which has improved the nutritional value, safety, quality, affordability, and profitability of foods and beverages. These research initiatives are integrated with translational extension efforts that together help improve public health and stimulate business development.

The mission of food science extension programs at Cornell is to assist farms and food businesses in New York State and beyond with the implementation of new technologies and production strategies that will improve product quality, safety, nutrition, and marketability. Extension personnel, located at the Cornell University (Ithaca, NY) and Cornell AgriTech (Geneva, NY), campuses facilitate these activities through technology transfers, process validations, project incubation, piloting, crisis management support, workshops, web-based training, and consultation.

Through our work in research and extension, food science extension programs have helped tens of thousands of food industry stakeholders. Measurable outcomes for these interactions have included bringing products to market, achieving regulatory compliance, reducing food safety risks, and adding value or extending product lines.

For More Information

CALS Department of Food Science
cals.cornell.edu/food-science

Contact Us

Sarah Lincoln
Cornell AgriTech
125 Food Research Lab
Geneva, NY 14456
sjl38@cornell.edu
315.787.2255



Table of Contents

Dairy Foods Extension.....	2
Course Information	4
Dairy Foods Certificate Program	5
Core Courses.....	7
Specialized Courses.....	11
Food Safety Courses	14
Regulatory Courses.....	15
Specialty Training Programs.....	16
Cursos que ofrecemos en español	17
Course Calendar.....	19
Extension Services	22
Food Processing and Development Laboratory.....	23
Notes.....	24



Dairy Foods Extension

The Cornell Dairy Foods Extension Certificate program offers comprehensive training for dairy processors of all sizes within New York State and beyond. In NYS alone, dairy manufacturing accounts for 23% of all agricultural manufacturing sales and 12% of employment, and relies heavily on in-state milk production from the farming sector. Dairy Foods Extension provides training and certificates in five areas including: (1) The Science of Yogurt and Cultured Dairy Products; (2) Fluid Milk Processing for Quality and Safety; (3) Membrane Processing; (4) The Science of Cheese Making; and (5) Ice Cream and Frozen Desserts. Courses aim to provide comprehensive basic training to dairy processors in vital topics such as milk quality and safety, dairy microbiology, Good Manufacturing Practices, unit operations, cleaning and sanitizing, food safety plans, audits, and state and federal regulations.

Meet the Team



Martin Wiedmann, PhD

Gellert Family Professor
in Food Safety

mw16@cornell.edu | 607.254.2838

Expertise: *Listeria monocytogenes*, pre-harvest food safety, molecular pathogenesis, microbial ecology & epidemiology



Nicole Martin, PhD

Associate Director, Milk Quality
Improvement Program

nhw6@cornell.edu | 607.255.2894

Expertise: The transmission, control and detection of dairy associated spoilage microorganisms & pathogens



Kimberly Bukowski

Extension Professional

krb14@cornell.edu | 607.254.3313

Expertise: Dairy plant auditing, food safety systems, GFSI-Safe Quality Foods, GMPs, dairy manufacturing, FSMA preventive controls for human food



Ana Gabriela Ortiz Quezada, PhD

Extension Associate

ago4@cornell.edu | 607.255.7098

Expertise: Research/development, pilot plant equipment, membrane filtration, fresh cheese making, flavor chemistry



Heather Spraker

Extension Support Specialist

has248@cornell.edu

Expertise: Dairy food systems, dairy product manufacturing, food safety systems



Hannah Moyal

Workforce Support Specialist

hb366@cornell.edu

Expertise:
Workforce development

Meet the Team



Louise M. Felker

Extension Support Specialist

lmf226@cornell.edu | 607.255.7098

Expertise: Workshop/short course organization & planning, food safety systems, GMPs, social media/web development



Alex Solla, MFA

Extension Support Specialist

ahs24@cornell.edu | 607.255.3459

Expertise: Course coordination & data management



Course Information

Registration and Confirmation

Please visit the Cornell Dairy Foods Extension website to register for courses: cals.cornell.edu/dairy-extension

Please contact Louise Felker (lmf226@cornell.edu) with any special payment circumstances prior to registering.

Cancellation Policy

Registration must be canceled by the close of business on the Friday two weeks prior to the start of the course in order to receive a full refund. Substitute registrations from the same company will be accepted at any time prior to the start of the course. No refunds will be given to individuals that fail to attend to their scheduled course.

Required Materials

All required course materials will be provided by Cornell University Dairy Foods Extension. Participants will be notified if the course requires use of a personal laptop computer during the hands-on sessions. Courses that include an online, self-paced portion require that the online materials be completed prior to the start of the hands-on workshop.

Certificate of Achievement

Attendees must sign in at the beginning of the workshop and attend all days of the workshop to qualify to receive a certificate of achievement. Attendees must also score a 70 or higher on the course post-test to pass the course and receive their certificate. One retake of the post-test is allowed per attendee.

Dairy Foods Certificate Program | Steps to Earning a Certificate

Core Courses

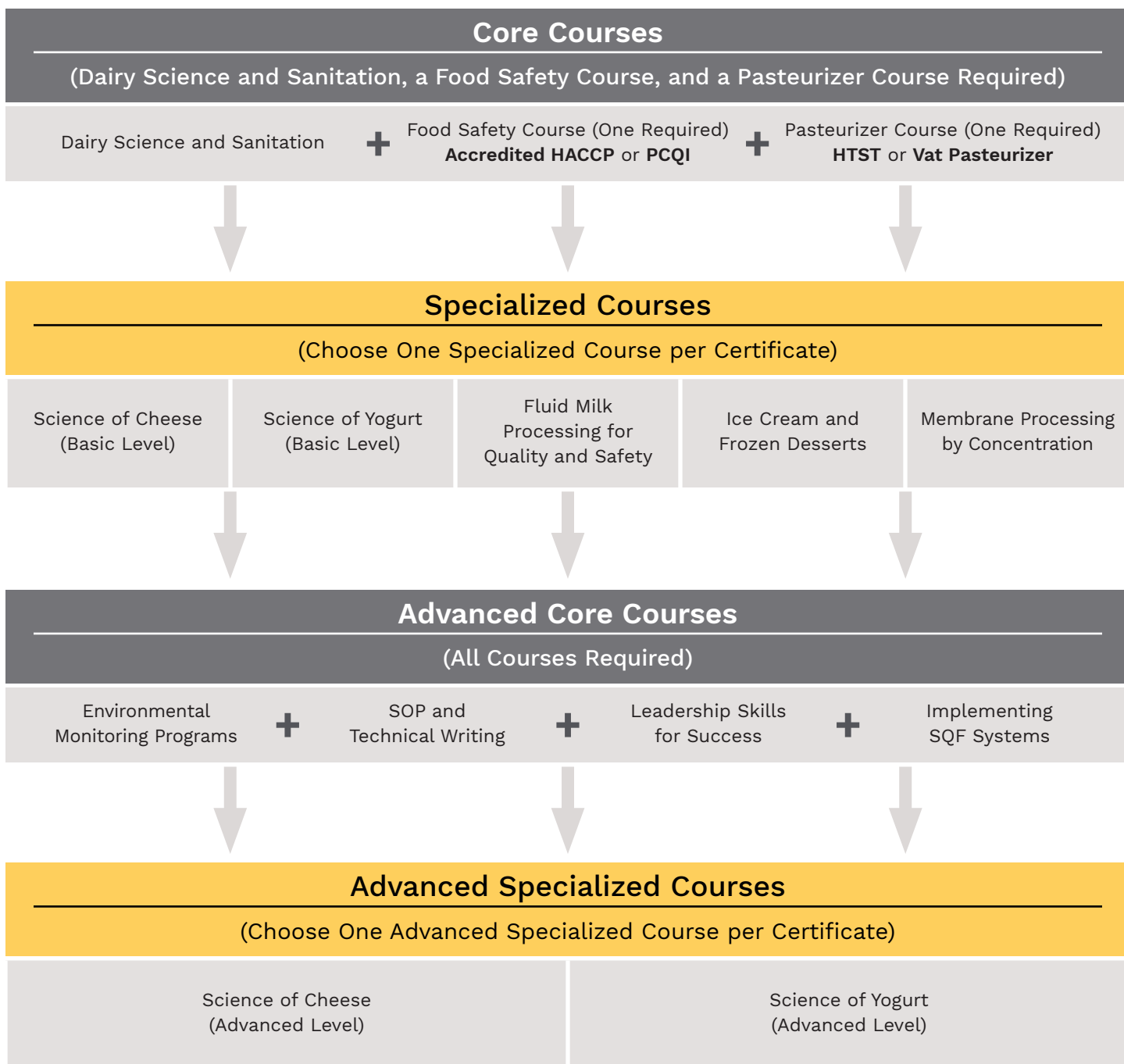
These courses are required to complete any chosen track for the specialized certificate programs. Dairy Science and Sanitation, a food safety course, and a pasteurizer course are required for Basic Certification. Environmental Monitoring Programs, SOP and Technical Writing, Leadership Skills for Success, and Implementing SQF Systems are required for Advanced Certification.

Specialized Courses

Choose one specialized course per certificate:

- Science of Cheese (Basic & Advanced Levels Available)
- Science of Yogurt and Cultured Dairy Products (Basic & Advanced Levels Available)
- Fluid Milk Processing for Quality and Safety
- Artisan Ice Cream and Frozen Desserts
- Membrane Processing by Concentration

Dairy Foods Certificate Program

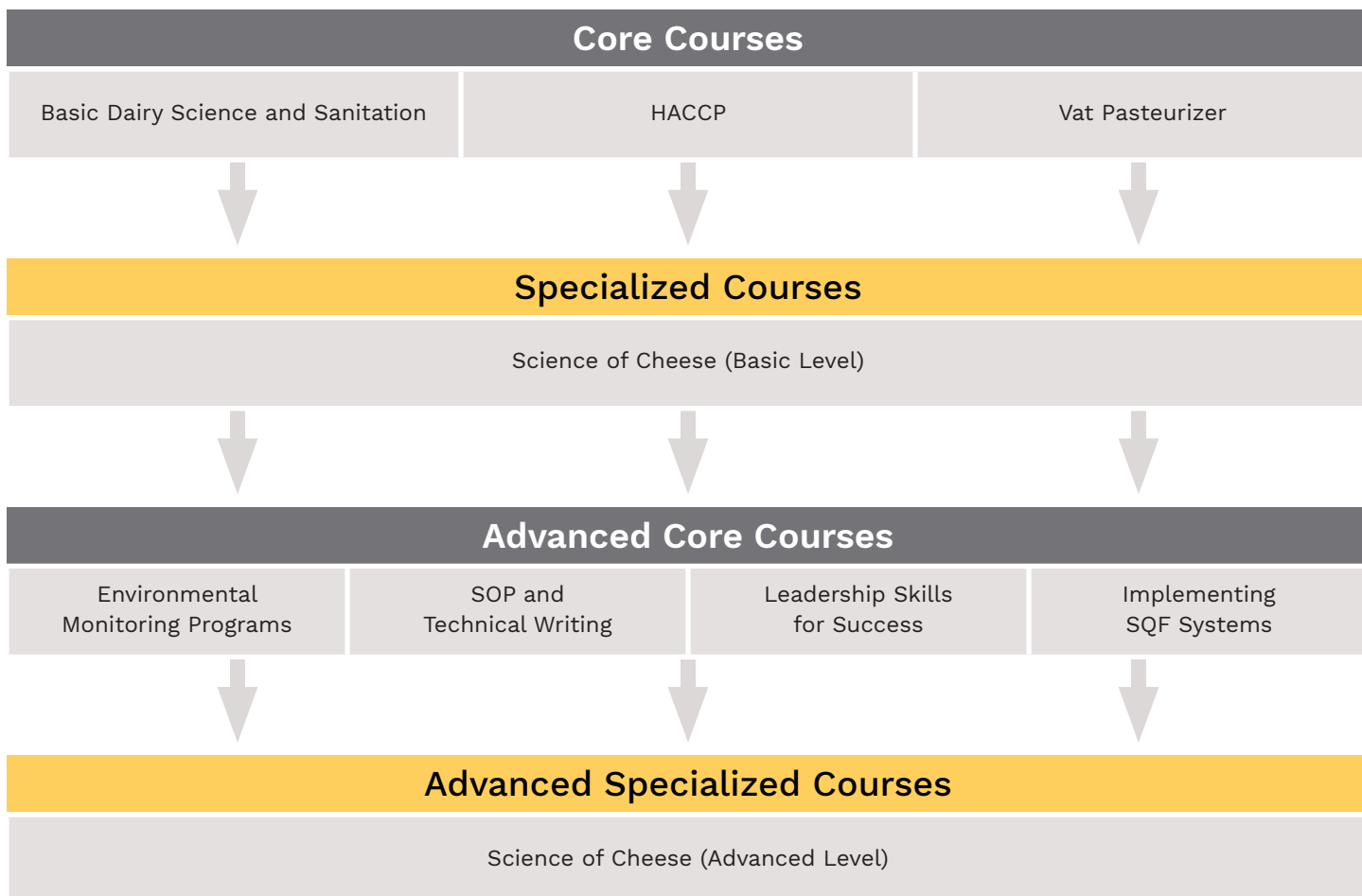


Successful completion of Core Courses and appropriate Specialized Course required for Basic Certification. Certificate valid for 3 years. 15 hours every 3 years of approved course work or meeting attendance required for renewal. See examples on the next page.

Successful completion of Basic Certificate Track, Advanced Core Courses, and appropriate Advanced Course required for Advanced Certification. Certificate valid for 3 years. 15 hours every 3 years of approved course work or meeting attendance required for renewal.

Dairy Foods Certificate Program – Examples

Example 1: I want to earn an Advanced Science of Cheese Certificate. What courses should I take?*



Example 2: I need to renew my Basic and/or Advanced Certificate. How do I do that?*

Attend Association Meeting	Attend Dairy Foods Extension Workshop	Attend State and Federal Regulatory Webinar, Training or Meeting
NYS Association for Food Protection NYS Cheese Manufacturers Northeast Dairy Foods Association American Cheese Society IAFP IFT NADRO AFDO SQF Dairy Practices Council Other meetings (pending approval)	Any Dairy Foods workshop Any track Other Dairy Foods workshops outside of the Certificate program	Processing Plant Superintendent Dairy Lab Seminar CMI School CMI Update NCIMS

*Example progression. Our team will work with you to customize your progression.

†Must complete 15 hours every 3 years for Basic Certification and/or Advanced Certification renewal.

Core Courses

Dairy Science and Sanitation

Available in English and Spanish

Online (Self-Paced), 2 CEUs – The Dairy Science and Sanitation Workshop is tailored to dairy processing personnel and is designed to help participants understand the basic principles of dairy science and safety, as well as emphasize dairy processing establishment needs related to dairy sanitation to ensure that proper programs are conducted in their establishments.

The course consists of online lectures that cover basic dairy science, including composition of milk, dairy microbiology, dairy food safety, as well as an overview of dairy regulations. Participants will also learn the basics of cleaning and sanitizing principles as well as unit operations that include: raw milk production and receiving, dairy processing, plant equipment and design, general control of pathogenic and spoilage microorganisms, in-depth information on cleaning and sanitizing chemicals, their properties and applications, and a discussion on CIP and COP systems and common errors seen in the industry.

Learning Outcomes

- Basic dairy microbiology/food safety overview
- Good manufacturing practices/dairy sanitation
- Milk composition and unit processing operations
- Dairy regulations/Food Safety Modernization Act

High Temperature Short Time (HTST) Pasteurizer Operator

Multiple Delivery Styles (Live via Zoom or On-Campus)

3 Day Course, 3 CEUs – This workshop is designed for pasteurizer operators, but is beneficial to all involved with milk pasteurization, including production, QA/QC and maintenance personnel. The course is instructed by industry experts and representatives from NYS Department of Agriculture & Markets and provides an overview of the design, operation, cleaning and maintenance of HTST systems. All required regulatory tests for HTST pasteurizers will be discussed and/or presented in a hands-on format to meet the training requirements for performing HTST system testing under the NY State Broken Seal Policy. Information on HTST/UHT systems will be covered. Background in dairy microbiology, product safety and quality will also be provided.

Learning Outcomes

- HTST and UHT operation components
- Regulatory requirements for HTST operation
- Cleaning and sanitizing HTST programs
- Requirement as part of NYS Broken Seal Program

Core Courses

Vat Pasteurizer

Available in English and Spanish

Online (Self-Paced), 1 CEU – This course is designed for individuals interested in vat pasteurization methods, rules, and regulations.

Learning Outcomes

- Basic dairy microbiology/food safety overview
- Good manufacturing practices/dairy sanitation
- Milk composition and unit processing operations
- Dairy regulations/Food Safety Modernization Act

Advanced Core Courses

Environmental Monitoring Programs

Hybrid Course, 2 CEUs – This course will prepare participants to develop and implement an effective Pathogen Environmental Monitoring program that will achieve greater product safety and quality. The course will focus on pathogens of concern and the importance of environmental sampling programs. Potential sources of contamination will be identified and control steps outlined. Participants will work in small groups to develop an Environmental Monitoring Plan and discuss mitigation steps and corrective actions to control microbial contamination in a food processing facility.

Learning Outcomes

- Identify the pathogens of concern in a food processing facility and describe which foodborne illnesses are associated with each
- List potential contamination sources within a food processing facility
- Create a plant zone map
- Develop a Sampling Plan
- Differentiate between different types of swabbing activities and explain the best practices for each
- Analyze trends in monitoring data
- Generate a Corrective Action Plan
- Identify opportunities for continuous program improvement

SOP and Technical Writing

Hybrid Course, 2 CEUs – This course presents the process of writing and maintaining Standard Operating Procedures for both regulatory compliance and everyday employee usage.

Core Courses

Learning Outcomes

- Outline regulatory requirements
- Determine which processes to document
- Evaluate the relationship between process documents
- Identify the audience
- Explain systems, activities, and processes
- Tense and word choice
- Writing effective documents
- Review and revision process
- Document compliance

AI in Food Safety: Ethical and Efficient Food Safety Document Writing

2 Day Course – This workshop provides participants with the knowledge and practical experience to effectively use Artificial Intelligence (AI) tools to develop key components of a food safety management system, including Standard Operating Procedures (SOPs), policies, training materials, and system verification activities. The course addresses the responsible and ethical use of AI and how these tools can improve efficiency, standardization, and accessibility while maintaining compliance with food safety regulations and audit standards.

Attendees will gain hands-on experience using AI to generate document drafts, experiment with different strategies for prompt engineering for precise and context-aware outputs, and understand how different technical approaches (e.g., inference with large language models, retrieval-augmented generation, fine-tuning) can enhance document quality and consistency. The course also covers the ethical use of AI so that participants are prepared to integrate AI safely and responsibly into their documentation workflows.

The course will conclude with a breakout in which participants can workshop a document of their choice independently with instructor consultation and support. This course is designed for beginner to intermediate users of AI—**no coding or technical background is required.**

Learning Objectives

- Identify opportunities to apply AI for developing food safety documentation, including SOPs, policies, and verification activities.
- Use prompt engineering to guide AI-generated content for clarity, accuracy, and regulatory compliance.
- Understand and compare technical approaches such as large language model inference and retrieval-based content generation.
- Evaluate and refine AI-generated text to ensure precision and alignment with organizational standards.
- Discuss ethical considerations and data governance principles in the use of AI for food safety applications.
- Collaborate with IT, HR, and QA teams to integrate AI responsibly within existing documentation systems.

Core Courses

Who Should Attend

This workshop is designed for professionals responsible for developing or managing food safety documentation who wish to explore practical, accessible AI tools. It is particularly relevant for:

- Food safety, quality assurance, and regulatory compliance professionals responsible for maintaining documentation systems.
- Supervisors and managers developing or revising facility-level procedures and training materials.
- Consultants, educators, and extension specialists supporting food safety system development and training.
- IT/HR professionals supporting documentation systems and AI tool deployment in compliance environments.

Learning Outcomes

- Use AI tools to efficiently draft, refine, and maintain food safety documentation.
- Evaluate AI outputs for technical accuracy and compliance.
- Integrate AI-assisted document generation into existing quality systems.
- Identify ethical considerations and data governance principles associated with AI tools in regulated industries.
- Apply hands-on learning through breakout sessions to create and review AI-assisted documentation aligned with their own operations.

Evaluation

This workshop does not include a formal examination. Participants will engage in case studies, peer review, and breakout activities to apply learned skills. They will also provide structured feedback on course content and delivery to inform future Extension programming.

Leadership Skills for Success

Live via Zoom

3 Two-Hour Sessions, 2 CEUs – Master critical communication and leadership skills to effectively manage employees, establish priorities and delegate responsibilities while building awareness of team dynamics and engaging employees through group problem-solving and decision making. Gain the commitment of others and add value to your organization by being clear about the results you want to achieve, the environment you want to create, and how you will develop and deploy talent. Become an effective leader with the ability to build relationships and manage workplace communications to be heard and understood by others while enhancing employee engagement and ensuring alignment and collaboration among members.

Specialized Courses

The Science of Cheese (Basic Level)

Hybrid Course, 2 CEUs – This workshop is designed for cheese manufacturers or others interested in the basic concepts of cheese making and is a required part of the Dairy Extension Basic Science of Cheese Certificate.

The course may also be taken as a stand-alone training. The course begins with an online lecture component covering the key areas related to vat pasteurization and basic cheese making techniques, cheese culture basics, milk defects, and cheese defects. The course will also include cheese making activities.

Learning Outcomes

- Foodborne pathogens resulting from unpasteurized milk
- Components of vat pasteurization
- Thermometer requirements
- Chart recorders and chart requirements
- Milk quality which impacts cheese making
- Cheese culture and chemistry and microbiology
- Cheese making unit operations and techniques and hands-on cheese making

The Science of Cheese (Advanced Level)

2 Day Course, 2 CEUs – This workshop is designed for advanced level cheese manufacturers or others interested in the advanced concepts of cheese and is a required part of the Dairy Extension Advanced Science of Cheese Certificate. The course may also be taken as a stand-alone training. The workshop will provide attendees with a review of information in key areas related to the complex chemistry of cheese, cheese styles and standards of identity, advanced microbiology, advanced cheese problems and defects, and food safety challenges in the cheese industry. It is expected that the attendee has a variety of applied experience as this course is designed to test overall knowledge and problem-solving as it relates to cheese. This course assumes the attendee understands applied concepts and science as it relates to cheese before arrival.



Specialized Courses

Learning Outcomes

- Milk components and advanced chemistry of cheese
- Cheese styles and standards of identity
- Cheese defects during process and affinage

The Science of Yogurt and Cultured Dairy Products (Basic Level)

Hybrid Course, 2 CEUs – This workshop is designed for yogurt and fermented dairy product manufacturers and is a required part of the Dairy Extension Basic Yogurt and Fermented Dairy Products Certificate. The course may also be taken as a stand-alone training. The workshop will provide attendees with information in key areas related to milk quality and its impact on finished dairy products, product evaluation and defects, ingredients in cultured dairy products, and product processing and formulation.

Learning Outcomes

- Milk quality and impact on cultured dairy products
- Culture microbiology and hands-on cultured dairy making
- Unit operations and sanitation in cultured dairy production
- Formulation utilizing different ingredients

The Science of Yogurt and Cultured Dairy Products (Advanced Level)

2 Day Course, 2 CEUs – This workshop is designed for advanced level yogurt and fermented dairy product manufacturers and is a required part of the Dairy Extension Advanced Yogurt and Fermented Dairy Products Certificate. The course may also be taken as a stand-alone training. The workshop will provide attendees with information in key areas related to advanced microbiology, chemistry in fermented milk and dairy product production, advanced sensory product evaluation, safety and quality assurance.

Learning Outcomes

- Milk components and advanced chemistry of cultured-dairy making
- Innovations in cultured dairy production
- Advanced sensory characteristics

Specialized Courses

Fluid Milk Processing for Quality and Safety

Hybrid Course, 2 CEUs – This workshop is designed for those involved and/or interested in fluid milk processing and testing with the intent of providing the tools to support and improve on quality assurance/control and food safety programs for bottled milks. While the course design assumes participants have some prior knowledge of dairy microbiology and processing (e.g., Dairy Science & Sanitation Course), critical concepts will be reviewed and expanded on for those who do not have prior knowledge.

Learning Outcomes

- Basic microbiology in relation to milk quality and safety
- Influence of raw milk quality on pasteurized milk quality and shelf life
- Fluid milk processing parameters
- Tools for assessing milk quality and shelf life

Introduction to Artisan Ice Cream and Frozen Desserts

Hybrid Course, 2 CEUs – This course is designed for the artisan ice cream manufacturer and will focus on select types of frozen desserts, including their composition and physical properties, ingredients, sensory, as well as equipment and the manufacturing process.

Learning Outcomes

- The composition of ice cream and origin of the ingredients within the food system
- The physical and chemical changes that occur during ice cream production
- The equipment involved in making ice cream and product development
- The sensory properties of ice cream

Food Safety Courses

Accredited HACCP Training

Available in English and Spanish

Online (Self-Paced), 2 CEUs – This course is designed for individuals who have responsibility for building, maintaining, and updating plant HACCP programs that will meet customer and third-party requirements. This course is accredited under the International HACCP Alliance and is designed to meet the requirements set for GFAI, NCIMS, FSIS, and the FDA.

Implementing SQF Systems

2 Day Course – This workshop is designed to give participants an understanding of the SQF Code, how to implement requirements in food production, manufacturing, storage, distribution, and packaging to achieve or maintain SQF Certification. Students must have completed a HACCP course of at least 16 hours prior to taking this course.

Introduction to Food Safety Principles

Available in English and Spanish

Online (Self-Paced) – This introductory course is tailored to processing personnel and is designed to help participants understand the basic principles of food safety in a processing plant. The benefit of using this course is to quickly train your frontline employees in the importance of Food Safety.

The course consists of self-paced online modules with knowledge checks at the end of each module that will cover basic food safety including Good Manufacturing Practices, Basic Microbiology and Foodborne Illness, and Food Safety Programs. The course is ideally suited for production line personnel, sanitation personnel and maintenance personnel.

This course provides baseline knowledge and is not intended to be a comprehensive training. We are offering this course based on a subscription price. Companies are granted access to the course through Canvas for the designated time purchased. Companies have unlimited access to the content and can train unlimited employees through the subscription period. Contact Louise Felker (lmf226@cornell.edu) for subscription pricing information.

Regulatory Courses

FSMA Preventive Controls Qualified Individual Training*

Multiple Delivery Styles (Live via Zoom or On-Campus)

3 Day Course, 2.5 CEUs – The *Current Good Manufacturing Practice, Hazard Analysis, and Risk-Based Preventive Controls for Human Food* regulation is intended to ensure safe manufacturing/processing, packing and holding of food products for human consumption in the United States. The regulation requires that certain activities must be completed by a preventive controls qualified individual who has successfully completed training in the development and application of risk-based preventive controls. This course developed by the FSPCA is the standardized curriculum recognized by FDA; successfully completing this course is one way to meet the requirements for a preventive controls qualified individual. These courses are taught by Lead Instructors trained by the FSPCA, who have been instructed in how to teach the FDA-recognized standardized curriculum.

**Course description provided by the Food Safety Preventive Controls Alliance*

Intentional Adulteration Vulnerability Assessments (IAVA)

1 Day Course – This course will provide participants with the knowledge to conduct vulnerability assessments under the Mitigation Strategies to Protect Food Against Intentional Adulteration (IA) regulation of the U.S. Food and Drug Administration (FDA). This regulation is one of several regulations that guide implementation of the provisions of the 2011 Food Safety Modernization Act (FSMA), which focuses on safe food practices.

The Mitigation Strategies to Protect Food Against Intentional Adulteration regulation (referred to as the IA rule) is aimed at preventing intentional adulteration from acts intended to cause wide-scale harm to public health, including acts of terrorism targeting the food supply. The regulation requires that certain activities must be completed by a “food defense qualified individual” who has successfully completed training in the conduct of a vulnerability assessment. This course developed by the FSPCA is the “standardized curriculum” recognized by FDA. Successful completion of this course is one way to meet this requirement. *These courses are taught by Lead Instructors trained by the FSPCA, who have been instructed on how to teach the FDA-recognized standardized curriculum.*

Dairy Lab Seminar

1 CEU – Provides dairy laboratory personnel with regulatory, procedural and scientific updates.

Certified Milk Inspectors Training School

2.5 CEUs – Provides detailed instruction of required dairy farm inspections and is a required course for Certified Milk Inspectors (CMI), those who inspect dairy farms. Offered once each summer.

Specialty Training Programs

Sensory Immersive Experience in Dairy

2 Day Course, 2 CEUs – This training will provide training in the basic components of sensory evaluation including psychological consideration in sensory analysis, physiology of sensory perception, reviewing the components of flavor and exploring flavor and texture attributes during hands-on sensory sessions.

Membrane Processing

2 Day Course, 2 CEUs – This workshop is designed for those involved and interested in the fractionation, separation, concentration, and drying of dairy products and ingredients. Quality, processing, food safety and cleaning are aspects of the courses. While the course design assumes participants have some prior knowledge of dairy processing, critical concepts will be reviewed and expanded on for those who do not. This course can be taken as a stand-alone program.

Fundamentals of Labeling

1 Day Course, 1 CEU – This workshop will provide attendees with an understanding of the labeling requirements for dairy products, ranging from label creation to compliance enforcement. Participants in regulatory, research & development, quality assurance, procurement, marketing, and operational roles are encouraged to attend. This workshop applies to dairy processors of any size as well as entrepreneurs. Discussion content will include requirements per the Code of Federal Regulations (CFR), regulations specific to NYS, and essential considerations from the Pasteurized Milk Ordinance (PMO). This workshop will focus on the fundamentals, while also exploring real-life examples. Participants from all experience levels within NYS and beyond are welcome to attend. No prerequisites are required.

Dairy Processing Plant Superintendent

Annual update provides dairy plant personnel with regulatory and extension updates. Offered at 4 locations each spring. Required update for all NY State Dairy Processing Plant Superintendents (PPS).

Certified Milk Inspectors Annual Update

Provides regulatory and extension updates on farm inspection and milk quality. Offered at 4 locations each fall. Required update for licensed Certified Milk Inspectors (CMIs).

New York State Fair Dairy Judging and Awards Program

This program provides dairy plants the opportunity to receive awards and recognition for product quality at New York State Fair. Coordination and judging of dairy products for state fair competition occurs each summer at Cornell.

Cursos que ofrecemos en español

La Ciencia Básica de los Productos Lácteos y su Sanidad

Este curso en línea está dirigido al personal que trabaja en la planta procesadora de lácteos y está diseñado para ayudar a los participantes a comprender los principios básicos de la ciencia y la seguridad láctea, así como enfatizar las necesidades de saneamiento de la planta. El curso consta de seminarios en línea que cubren la ciencia láctea básica, incluida la composición de la leche, la microbiología láctea, la seguridad alimentaria láctea, así como una descripción general de las regulaciones lácteas de los Estados Unidos. Los participantes también aprenderán los conceptos básicos de los principios de limpieza y desinfección, así como las operaciones unitarias que incluyen: producción y recepción de leche cruda, procesamiento de lácteos, diseño y equipo de planta, control general de microorganismos patógenos y de deterioro, información detallada sobre productos químicos de limpieza y desinfección, sus propiedades y aplicaciones, y una discusión sobre sistemas CIP y COP, así como errores comunes observados en la industria.

En este curso se aprenderá sobre:

- Microbiología láctea básica / Panorama general de la seguridad alimentaria
- Buenas prácticas de manufactura / Saneamiento lácteo
- Composición de la leche y operaciones unitarias de procesamiento
- Regulaciones lácteas / Ley de Modernización de la Seguridad Alimentaria (FSMA)

Operador(a) de Pasteurizador de Alta Temperatura y Corto Tiempo (HTST)*

Varios modos de impartición (En vivo por Zoom o Presencial)

Este taller está diseñado para operadores de pasteurizadores, pero es beneficioso para todos los involucrados en la pasteurización de la leche, incluido el personal de producción, control de calidad (QA/QC) y mantenimiento. El curso es impartido por expertos de la industria y representantes del Departamento de Agricultura y Mercados del Estado de Nueva York (NYS Department of Ag & Markets) y proporciona una visión general del diseño, operación, limpieza y mantenimiento de sistemas HTST. Todas las pruebas reglamentarias requeridas para pasteurizadores HTST serán discutidas y/o presentadas en un formato práctico para cumplir con los requisitos de capacitación para realizar pruebas de sistemas HTST bajo la Política de Sello Roto del estado de Nueva York. Se cubrirá información sobre sistemas HTST/UHT. También se proporcionarán antecedentes en microbiología láctea, seguridad alimentaria y calidad.

En este taller se aprenderá sobre:

- Componentes de operación HTST y UHT
- Requisitos reglamentarios para la operación HTST
- Programas de limpieza y desinfección HTST
- Requisito como parte del Programa de Sello Roto de NYS

**Este curso se imparte en inglés con material impreso en español. Es prerrequisito que la persona interesada tenga por lo menos 4 meses de experiencia operando el pasteurizador HTST al momento de tomar el curso.*

Cursos que ofrecemos en español

Pasteurizador en tanque/de cuba (Vat Pasteurizer)

En línea (a su propio ritmo). Este curso está diseñado para personas interesadas en los métodos, reglas y regulaciones de pasteurización en tanque (Vat pasteurization).

En este curso se aprenderá sobre:

- Microbiología láctea básica / Panorama general de la seguridad alimentaria
- Buenas prácticas de manufactura / Saneamiento lácteo
- Composición de la leche y operaciones unitarias de procesamiento
- Regulaciones lácteas / Ley de Modernización de la Seguridad Alimentaria (FSMA)

HACCP Autorizado

En línea (a su propio ritmo). Este curso está dirigido para personas que tienen la responsabilidad de desarrollar, mantener y actualizar los programas de HACCP de la planta, los cuales cumplirán con los requisitos de sus clientes y de terceros. Este curso está acreditado por la International HACCP Alliance y está diseñado para cumplir con los requisitos establecidos por GFAI, NCIMS, FSIS y la FDA.





















Introducción a los Principios de la Seguridad Alimentaria

En línea (a su propio ritmo). Este curso introductorio está dirigido para el personal que trabaja en la planta de procesamiento de alimentos y tiene como objetivo ayudar a los participantes a comprender los principios básicos de la seguridad alimentaria en una planta de procesamiento de alimentos. La ventaja que este curso brinda es capacitar rápidamente a sus empleados de línea sobre la importancia de la Seguridad Alimentaria.

El curso consta de módulos en línea, y se toman a su propio ritmo, con verificaciones de conocimiento al final de cada módulo que cubrirán la seguridad alimentaria básica, incluidas las Buenas Prácticas de Manufactura, microbiología básica y enfermedades transmitidas por alimentos, así como programas de seguridad alimentaria. El curso es ideal para personal de línea de producción, saneamiento y mantenimiento. Este curso proporciona solamente los conocimientos básicos y no pretende ser una capacitación integral.

Ofrecemos este curso por medio de una suscripción. Una vez adquirida la suscripción, se tiene acceso ilimitado al contenido y se pueden capacitar a un número ilimitado de empleados durante el período de suscripción adquirido. Comuníquese con Louise Felker (lmf226@cornell.edu) para obtener información sobre los precios de suscripción.

Course Calendar

Topic	Date Offered	Location	Category	Training Delivery
CORE COURSES				
Dairy Science and Sanitation (English & Spanish)	Rolling Admission, On-Demand	Online	Certificate Program	
Dairy Science and Sanitation (English & Spanish)	For 2026 dates, visit DFE website	For 2026 locations, visit DFE website	Certificate Program	 
HTST Pasteurizer Operator	April 7–9, July 21–23	Cornell University (Ithaca, NY)	Certificate Program, Food Processing	 
HTST Pasteurizer Operator	October 6–8	Live via Teleconference (Zoom)	Certificate Program, Food Processing	 
Vat Pasteurizer (English & Spanish)	Rolling Admission, On-Demand	Online	Certificate Program, Food Processing	
ADVANCED CORE COURSES				
Leadership Skills for Success	September 9–11	Live via Teleconference (Zoom)	Certificate Program	
SOP and Technical Writing (Hybrid Format)	November 3	Online & Live via Teleconference (Zoom)	Certificate Program, Food Processing	  
Environmental Monitoring Programs (Hybrid Format)	November 4	Online & Cornell University (Ithaca, NY)	Certificate Program, Food Safety	  
FOOD SAFETY COURSES				
Accredited HACCP (English & Spanish)	Rolling Admission, On-Demand	Online	Certificate Program, Food Processing, Food Safety, Regulatory	
Accredited HACCP (English & Spanish)	For 2026 dates, visit DFE website	For 2026 locations, visit DFE website	Certificate Program, Food Processing, Food Safety, Regulatory	 
Introduction to Food Safety Principles (English & Spanish)	Rolling Admission, On-Demand	Online	Food Safety	
Implementing SQF Systems	August 25–26	Cornell University (Ithaca, NY)	Food Safety, Regulatory	



ON-CAMPUS



ON-SITE



ONLINE



ZOOM





















HYBRID



PARTNERSHIP


Course Calendar


Topic	Date Offered	Location	Category	Training Delivery
SPECIALIZED COURSES				
SCIENCE OF CHEESE				
The Science of Cheese (Basic Level) (Hybrid Format)	October 14	Online & Cornell University (Ithaca, NY)	Certificate Program, Food Processing	  
SCIENCE OF YOGURT				
The Science of Yogurt and Cultured Dairy Products (Basic Level) (Hybrid format)	April 28	Online & Cornell University (Ithaca, NY)	Certificate Program, Food Processing	  
The Science of Yogurt and Cultured Dairy Products (Advanced Level)	May 5–6	Cornell University (Ithaca, NY)	Certificate Program, Food Processing	 
FLUID MILK PROCESSING				
Fluid Milk Processing for Quality and Safety (Hybrid Format)	March 5	Online & Live via Teleconference (Zoom)	Certificate Program, Food Processing	  
ICE CREAM AND FROZEN DESSERTS				
Intro to Ice Cream and Frozen Desserts (Hybrid Format)	March 25–26	Online & Cornell University (Ithaca, NY)	Certificate Program, Food Processing	  
SPECIALTY TRAINING PROGRAMS				
AI in Food Safety: Ethical & Efficient Food Safety Document Writing	January 26–27	Live via Teleconference (Zoom)	Certificate Program	
Sensory Immersive Experience in Dairy	March 17–18	Cornell University (Ithaca, NY)	Food Processing	
Membrane Processing	August 18–19	Cornell AgriTech (Geneva, NY)	Certificate Program, Food Processing	
Fundamentals of Labeling	October 20	Live via Teleconference (Zoom)	Food Processing, Regulatory	



Course Calendar

Topic	Date Offered	Location	Category	Training Delivery
REGULATORY COURSES				
FSMA Preventive Controls Qualified Individual Training	February 24–26	Live via Teleconference (Zoom)	Certificate Program, Food Safety, Regulatory	
FSMA Preventive Controls Qualified Individual Training	June 2–4	For 2026 locations, visit DFE website	Certificate Program, Food Safety, Regulatory	 
FSMA Preventive Controls Qualified Individual Training	November 17–19	Live via Teleconference (Zoom)	Certificate Program, Food Safety, Regulatory	
Dairy Lab Seminar	April 21	Live via Teleconference (Zoom)	Certificate Program, Food Safety, Regulatory	
Certified Milk Inspectors Training School (Hybrid Format)	July 29–31	Online & Cornell University (Ithaca, NY)	Certificate Program, Food Safety, Regulatory	   


 **On-Campus Trainings** take place at the Cornell University Stocking Hall Conference Center, unless otherwise noted. All courses listed are open to the public.*

 **On-Site Plant Trainings** can be offered off campus at industry sites or virtually; courses at company sites can be limited to attendees from the hosting company.*

 **Online (Self-Paced) Trainings** are completed online using eCornell or the Canvas Learning Management System.

 **Zoom Courses** are hosted via live teleconference (Zoom).

 **Hybrid Courses** include online as well as hands-on sessions.*

 **Partnership Courses** are conducted in partnership with other universities or organizations such as the New York State Department of Agriculture & Markets.*

**Course delivery subject to change due to public health guidance from Cornell University.*

Extension Services

Industry Workshops (On-Site or Virtual)

Contact Louise Felker (lmf226@cornell.edu) for price quote and scheduling.

- Dairy Science & Sanitation (2.5 days)
- Preventive Controls Qualified Individual (2–2.5 days)
- HACCP Training (2 days)
- GMPs Training (2 days)
- Internal Audit Training (1 day)
- Sensory Training (1 day)
- Food Defense Training (2 days)
- Foreign Supplier Verification Programs Training (1.5 days)

Consulting Services

Contact Louise Felker (lmf226@cornell.edu) for price quote and scheduling.

Dairy Process Authority

Dairy Process review and validation available for dairy products. Fees charged for initial review, research, and on-site review. Submission options include the following:

- Product and Process Review/ Scheduled Process
- Reduced Oxygen Packaging (ROP)/ Vacuum Packing
- Lab Analysis
- Deviation Evaluation

Cornell's Process Authority works with food manufacturers to validate products for safety and stability. The Scheduled Process is a document that can be submitted to regulatory agencies, such as state or federal inspectors, to support safe food processing practices and ensure minimal risk of microbial pathogenic growth.

Pre-Audit Consulting

Preparing for a third-party audit and want to make sure that you're ready? Our team can visit your facility and conduct pre-audit consulting.

Document Review

Food safety plan and document review available, on-site and remotely.

Validation Sampling

Validation sampling of environmental monitoring programs available.

Food Processing and Development Laboratory

The Cornell University Food Processing and Development Laboratory (FPDL) is a highly flexible pilot plant that allows industry access to equipment and expertise to facilitate the development of new dairy products and/or to produce prototype products on a small-scale. The 'plug and play' design means that the FPDL can emulate your plant processing parameters for accurate product development projects while the company can get product trials completed without stopping actual production. Because the facility is a licensed dairy plant permitted by New York State, our products can be used for sensory or consumer acceptance studies.

The 6,000 sq. ft. main processing area is directly adjacent to Cornell's fully licensed dairy plant. The pilot plant houses a small-scale HTST system capable of continuous pasteurization of batches as small as 100 gallons with up to a 12-minute extended hold. The facility has multiple cheese vats from 50 to 500 gallon capacities (with associated equipment such as cheddar milling equipment, cheese presses, a variety of moulds, etc.). For yogurt and cultured products production, the facility has a Greek yogurt separator, fermentation vats from 50-500 gallons, several filling capabilities as well as fermentation rooms to 110°F. The FPDL has continuous and batch ice cream freezing capability as well as a walk-in hardening freezer (-40°F). The pilot plant also has access to very high-quality milk from Cornell's Vet School farm located less than a mile away. This combination allows for scaling up of production in order to provide a variety of products for consumer demonstrations, food shows and exhibitions.

The facility has full-time experienced professionals who are able to assist in all aspects of food product development and processing. Companies/individuals can visit the facilities and work collaboratively or the staff of the FPDL can process products to your specifications and ship it to you overnight. Customized small product development runs can be conducted with our established access to suppliers of ingredients, cultures and raw materials or, if a company prefers, with their supplied ingredients.

For more information visit the [FPDL website](#) or contact Beth Chapin (brm4@cornell.edu) with questions.



Notes

[illegible]

Notes

[illegible]

For More Information



Dairy Foods Extension

cals.cornell.edu/dairy-extension

CONTACT US

Louise M. Felker

110 Stocking Hall West

411 Tower Road, Cornell University

Ithaca, NY 14853

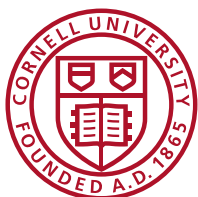
lmf226@cornell.edu

607.255.7098

Catalog Design: Nicholas Luongo, IFS@CU

Editors: Louise M. Felker & Ana Gabriela Ortiz Quezada, Dairy Foods Extension

Photography: Esperanza33, iStock (cover) | Jason Koski, UREL (cover, inside cover, p. 1, 3, 11 & 23) | Zora Huang (cover) | Allison Usavage (inside cover, p. 11, 23 & back cover) | Riccardo Mojana (inside cover) | Anahita Verahrami, CALS (inside cover & p. 3) | Lindsay France, UREL (p. 1 & 3) | Robyn Wishna (p. 1 & 3) | Alex Solla, CALS (p. 11) | Ross & Helen, iStock (p. 11) | Sreang "C" Hok, UREL (p. 11 & 23) | Sasha Israel, CALS (back cover)



Cornell **CALS**
College of Agriculture and Life Sciences