



Course:	Mastering the Art of Healthy Yogurt & Ice Cream Production: Gluten-Free, Vegan & Naturally Sweetened Creations
Guided Learning Hours:	12
Pre-requisite:	None
Requirements:	N/A

Abstract:

Mastering the Art of healthy Yogurt & Ice Cream Production is an intensive, hands-on course designed for aspiring and early-stage dairy entrepreneurs. Participants learn the science and technology behind premium ice-cream and yogurt, from ingredient selection, formulation, and use of industrial equipment to process control, quality assurance, and food safety compliance. Through practical production sessions, case studies, and basic financial planning, students gain the skills to develop market-ready recipes, scale up from pilot to commercial batches, optimize shelf life and texture, and design efficient, profitable workflows for market popup, factories, and packaged retail products.

Target Audience:

- Persons interested in Ice-cream and Yogurt Manufacturing

Learning Outcomes

On the completion of this programme, participants should: -

- Understand Fundamentals of Ice-Cream Production
- Explain Ingredient Functions & Formulation Principles
- Apply Core Ice-Cream Processing Techniques
- Develop and Balance Flavours & Recipes
- Perform Hands-On Production & Troubleshooting
- Understand Fundamentals of Yogurt Science & Types
- Select & Handle Yogurt Ingredients and Cultures
- Apply Yogurt Production Processes
- Ensure Quality, Sanitation & Problem-Solving
- Understand Packaging, Storage & Small-Scale Business Basics (Optional)

Course Content

- Introduction to Ice-Cream
 - History and types (custard vs. Philadelphia style, sorbet, gelato, soft serve)
 - Basic equipment and hygiene/safety in a food environment

- Ingredients & Formulation
 - Role of milk, cream, sugar, stabilizers, emulsifiers, and flavouring
 - Understanding fat content, overrun, and texture

- Basic Production Process
 - Pasteurization and aging of mix
 - Churning, freezing, and storage fundamentals
 - Preventing ice crystals and common defects

- Flavours Development & Recipes
 - Vanilla, chocolate, and fruit bases
 - Swirls, inclusions (nuts, cookies, candy), and balancing mix-ins

- Practical Sessions
 - Hands-on: making 2–3 basic recipes
 - Troubleshooting texture, sweetness, and melting issues

- Introduction to Yogurt
 - Types of yogurt (set, stirred, Greek, drinkable, flavoured vs. plain)
 - Basic dairy science: milk composition and fermentation basics

- Ingredients & Cultures
 - Milk types (fresh, UHT, powdered) and solids adjustment
 - Starter cultures: strains, activity, and handling

- Production Process
 - Standardization, homogenization, and pasteurization
 - Cooling to inoculation temperature, adding culture, incubation, and cooling

- Texture, Flavour & Variations
 - Controlling acidity, thickness, and syneresis (whey separation)
 - Strained/Greek yogurt, sweetened, flavoured, and fruit-on-the-bottom styles

- Hygiene, Quality & Troubleshooting
 - Sanitation, contamination prevention, and shelf-life

- Common defects (off-flavours, weak body, excessive whey) and how to correct them
- Packaging, Storage & Small-Scale Business Basics (Optional)
 - Containers, labelling, cold chain management
 - Costing, simple production planning, and regulatory/allergen considerations.

SESSION 1: Face to face Practical Lab Sunday session

SESSION 2: Online (Wednesday @6:00pm)

SESSION 3: Online (Friday @ 6:00pm)

SESSION 4: Face to Face Practical Lab Sunday session