#### **TECHNICAL SHORT COURSE**

# THARP & YOUNG ON ICE CREAM

100+ Years Of Combined Experience · The Preferred Training Resource For Over 800 Companies From All Around The World!

Join us in this 5 day course covering all aspects of ice cream technology!

5 JUNE – 9 JUNE 2023

FACULTY OF SCIENCE, NATIONAL UNIVERSITY OF SINGAPORE

Register by 31 Jan 2023 for early bird price!



# THARP & YOUNG ON ICE CREAM



DR STEVEN YOUNG

Principal of Steven Young Worldwide

Dr Young is an expert on ice cream, having run short courses since 1996 and co-authored "Tharp & Young on Ice Cream".



#### **MR BILL SIPPLE**

Principal of Wm Sipple Global Services

Mr Sipple is an experienced ice cream industry consultant with over 40 years of experience.

#### **COVERAGE INCLUDES:**

#### Market Insights

Ingredient Function & Selection

Ice Cream Structure & Properties

# Ice Cream Making Process

**Sensory Evaluation** 

Quality Assurance

#### **1** What is this course about?

This 5 day course for industry professionals covers all aspects of ice cream technology, both technical and non-technical, from ingredient selection to production, flavoring, quality assurance, and safety management.

#### 3 How much is the course?

\$1600 per pax\*

Early bird special price for registration and payment before 31 Jan 2023

\$1800 per pax\*

Registration and payment before 15 March 2023

#### Who is this course for?

This course is prepared for industry professionals, including but not limited to manufacturers, marketers and retailers of frozen dessert.

Professionals involved in product development, quality assurance and production/operation will also benefit from this course. The course is open to both locals and foreigners.

#### **4** How do I register?

Learn how to register in the next page. Please note that an admin fee of \$300 will be charged for all cancellations received after 15 March 2023. No refunds will be processed after 15 May 2023.

fst.nus.edu.sg | onicecream.com | lim.yx@nus.edu.sg

# Tharp & Young Cream

# Course Schedule

### Day 1

The Evolution of Ice Cream



Current Market, Product & Operational Trends

Milk Composition & Chemistry



# Day 3

Whipping, Freezing & Hardening: Basic Phenomena II

Whipping, Freezing & Hardening: In Practice

**Heat Shock Principle & Effects** 

# Day 5



Quality Assurance

**Food Safety** 

Formulating Soft Serve, Milk Shake, Water Ice, Sorbet

Formulating Fat- and Sugar-Modified Products

**Economics & Cost Management Troubleshooting** 

### Day 2

Ice Cream Ingredients and Their Influence on Key Properties

**Factors Affecting Composition** 

Functional Base Mix Compositions

Flavoring & Coloring Overview

**Workshop - Calculations** 

Mix Processing: Ingredient Assembly

Mix processing: Pasteurization to Aging

Whipping, Freezing & Hardening: Overview & Basic Phenomena I

## Day 4



Management of Cystallisation of Water

Management of Fat Agglomeration

Management of Air Cell Size

Sensory Evaluation for Quality Assurance

Ice Cream Sensory Descriptors

**Commercial Products Clinic** 

# Scan this code to register now!



Or access the registration form at forms.office.co m/r/4jwJrayvXG

# How to register



STEP 1 - REGISTRATION



# Scan this code to register now!

Or access the registration form at <a href="mailto:forms.office.com/r/4jwJrayvXG">forms.office.com/r/4jwJrayvXG</a>



#### STEP 2 - PAYMENT

Payment method	Internet banking or ATM transfer	
	Payment in SGD	Payment in USD
Name	National University of Singapore	
Account no.	032-000313-3	0012036043
Bank	DBS Bank Ltd, Singapore	Citibank N.A. Singapore
Swift code	DBSSSGSG	CITISGSG
Remark	160-FST Departmnet	

#### Cheque or bank draft

Payee	National University of Singapore
Mail to	Department of Food Science and Technology 2 Science Drive 2 Faculty of Science National University of Singapore Singapore 117543 Remark: Ice-cream Workshop



#### **STEP 3 - CONFIRMATION**

To ensure proper crediting, please email your payment slip/proof or transmittance advice to Ms Lim Yan Xi at: lim.yx@nus.edu.sg