

Refrigerated and Frozen Food Operations

Location: Your Computer Offering # 1005-703 Priority Code: 520

Part 5 of a 6-part series: The Role of Engineering in Food Manufacturing: Take all six parts and **SAVE \$000.000**

ABOUT THIS SERIES

This **series** will be presented in six sessions with each session complete as a stand-alone course. The content of the six sessions will include:

- An Introduction to Food Manufacturing Operations
- Food Manufacturing Layout and Design
- Food Safety and Regulations
- Thermal Process Operations
- Refrigerated and Frozen Food Operations
- Dry Food Manufacturing Operations

The overall purpose of this series is to assist engineers and other professionals associated with food manufacturing operations to gain an understanding of food manufacturing facilities, equipment and processes. Specific attention will be given to the unique sanitation requirements of food manufacturing operations and other concepts associated with food safety. The focus of the course will be on sensors to be used with food products and the systems available for transmission of information detected by the sensors. Participants in the course will gain sufficient understanding about hardware and systems to evaluate potential applications in their operations.

This course presented by CfPA in conjunction with



WILEY-BLACKWELL

and



WHO SHOULD ATTEND

This course has been developed for food industry professionals involved in food manufacturing operations. The focus of the course is on the concepts and principles associated with food manufacturing, with emphasis on concepts essential to ensuring safety of the food products being manufactured. The course content will be beneficial for plant engineers, maintenance engineers, quality assurance staff, manufacturing operations management and personnel responsible for acquisition of raw products and ingredients.

LEARNING OBJECTIVES

Upon completion of this training, you will be able to:

- Outline the basic concepts associated with preservation of foods using reduced temperature during storage and distribution
- Describe the changes occurring in a food product as a result of phase change, and the impact of these changes on product shelf life and product quality
- Explain the importance of temperature and other environmental conditions during storage and distribution on quality and shelf life of refrigerated and frozen foods

COURSE DESCRIPTION

This 90-minute **accredited** training is designed to assist engineers and other professionals associated with food manufacturing operations to gain an understanding of the general principles of food preservation by reducing temperature. In addition, the course will include topics relevant to ensuring food safety and increased shelf life through proper product cooling and freezing. Discussions on such vital factors as storage, transportation and distributions of refrigerated and frozen foods on safety and quality will be included.

Module 1: Food preservation by reducing temperature:

- Influence of temperature on microbial populations and enzymes
- Changes in product quality
- Food safety considerations

Module 2: Systems for refrigerated foods and food freezing:

- Food product cooling
- Food freezing systems
- Importance of sanitation

Module 3: Storage, transportation and distribution systems:

- Transport vehicles
- Storage facilities and warehouses
- Temperature control systems

Question and Answer Session

ABOUT ON-DEMAND:

Our pre-recorded on-line training courses are available for viewing at your convenience at your computer. Register for a CfPA on-demand course, your registration will be processed within two (2) business days, after payment and registration are complete you will receive an email from olinetraining@cfpa.com with your password to access the on-demand course. You will have two (2) business days to view the course. You **MUST** complete all polls and the course evaluation to receive your accreditation certificate for this course.

For more information see reverse side ⇨



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COURSE DIRECTOR

Dr. Dennis R. Heldman, Principal of Heldman Associates, a consulting firm involved in applications of engineering concepts to food processing for educational institutions, industry and government.

With contributions by: Dr. J. Peter Clark, Process Engineer and consultant to the food industry

Dr. Dennis R. Heldman is Principal of Heldman Associates, a consulting firm involved in applications of engineering concepts to food processing for educational institutions, industry and government. His educational background emphasized the application of engineering principles and concepts to the processing of foods. Dr. Heldman was Professor of Food Process Engineering at Rutgers, the State University of New Jersey, and Director of the Cooperative Research & Development Program in the Center for Advanced Food Technology (CAFT). He has served as President-Elect, President and Past-President of IFT, the Society for Food Science and Technology, an international organization with over 20,000 members. He was elected Fellow in the International Academy of Food Science & Technology.

Dr. J. Peter Clark is a Process Engineer and consultant to the food industry, and Contributing Editor of Food Technology magazine, with a monthly column on processing since 2002. Previously, he was Vice President, Technology with Fluor Daniel (a major engineering firm); Senior Vice President, Process Technology of A. Epstein and Sons International (a large architecture and engineering firm with a food practice) and President of Epstein Process Engineering (a subsidiary); Director of Research for ITT Continental Baking Company; Assistant, then Associate Professor of Chemical Engineering at Virginia Tech; and he began his career as a Research Engineer with the U. S. Agricultural Research Service. Dr. Clark is author of the books entitled "Practical Design, Construction and Operation of Food Facilities" and of "Case studies in Food Engineering: Learning from Experience."

PARTS IN THE SERIES

Part 1: An Introduction to Food Manufacturing Operations:	On Demand	Course ID# 2364	Offering# 1002-709
Part 2: Food Manufacturing Layout and Design:	On Demand	Course ID# 2365	Offering# 1002-702
Part 3: Food Safety and Regulations in Manufacturing	On Demand	Course ID# 2366	Offering# 1003-702
Part 4: Thermal Process Operations	On Demand	Course ID# 2367	Offering# 1004-703
Part 6: Dry Food Manufacturing Operations	June 2, 2010	Course ID# 2369	Offering# 1006-101

TUITION AND REGISTRATION

TUITION* – **Single Rate: U.S.\$295.00 per person** **Group Rate: U.S.\$245.00 per person****

Register at www.cfpa.com. Enter **Course Offering #1005-703** into **Quick Jump**. To register use **Priority Code: 520**.

For Questions and Information call Customer Service at 732-613-4500.

Please Note: Multiple participants are not authorized to share access provided to a single registrant, a single dedicated seat license must be purchased for each individual. CfPA reserves the right to cancel access or collect the group rate payment if this requirement has been violated. Only registered participants will receive accreditation.

Save \$450

when you Register for ALL 6 parts of the series

(must register for all 6 at the same time to receive discount)

ACCREDITATIONS



The **Center for Professional Advancement** has been approved as an Authorized Provider by the **International Association for Continuing Education and Training (IACET)**, 8405 Greensboro Drive, Suite 800, McLean, VA 22102. In obtaining this approval, **The Center for Professional Advancement** has demonstrated that it complies with the ANSI/IACET Standards which are widely recognized as standards of good practice internationally. As a result of their Authorized Provider membership status, **The Center for Professional Advancement** is authorized to offer IACET CEUs for its programs that qualify under the ANSI/IACET Standards.

ABOUT WILEY-BLACKWELL

Wiley-Blackwell was formed in February 2007 as a result of the acquisition of Blackwell Publishing Ltd. by John Wiley & Sons, Inc., and its merger with Wiley's Scientific, Technical, and Medical business. Together, the companies have created a global publishing business with deep strength in every major academic and professional field. Wiley-Blackwell publishes approximately 1,400 scholarly peer-reviewed journals and an extensive collection of books with global appeal. For more information on Wiley-Blackwell, please visit www.blackwellpublishing.com or <http://interscience.wiley.com>.

TERMS AND CONDITIONS

***Payment:** Tuition payable in US funds net of all charges. Payment is due at time of registration in the form of a credit card. Please contact CfPA's Customer Service for other payment options.

****Group Rate:** The Group Rate is for two or more enrollments, up to five registering from the same company at the same time. For groups of six or more, please contact Customer Service for group pricing.

Cancellations/No Show: "Live" - Registrants may cancel up to two working days prior to the course start date and will receive a letter of credit to be used towards a future course up to one year from date of issuance. No credit will be issued for no-shows and/or cancellations less than two working days prior to the course. : **"On-Demand"** - No refund or credit will be issued for no-shows and/or cancellations of on-demand training courses. CfPA is not responsible for any outside related costs incurred by registrant's cancellation.

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