



BAKERS MANUFACTURING
ACADEMY

COURSE CATALOG

*American Bakers Association Member pricing and Non-Member pricing available.



WWW.AMERICANBAKERS.ORG/ACADEMY | ACADEMY@AMERICANBAKERS.ORG



CONTENTS

PAGE	CONTENTS
1	<u>COURSE CATALOG INTRODUCTION</u>
2	<u>HOW TO GET STARTED</u>
3	<u>BEGINNER TRAINING</u>
10	<u>SPECIALIZED TRAINING</u>
15	<u>ADVANCED TRAINING</u>
17	<u>DIGITAL BADGE SYSTEM</u>

FACILITY-BASED TRAINING SOLUTIONS

The flexibility of the Bakers Manufacturing Academy (BMA) allows entire corporations to integrate our training enterprise-wide by activating each bakery/facility location and enroll their workforce into programs that work best for their employee training goals.

THROUGH BMA, YOU CAN:

- Log in to the academy portal to enroll employees in educational programs
- Track student participation
- View certificates and badges earned, view and download progress reports
- Engage with employees through the academy portal, receive notifications, and more

THE ACADEMY PORTAL OFFERS:

ONLINE PORTAL

Companies and employees access the portal through individual username and password logins. Profiles are unique to your company and allow employees and training managers to access your facilities accounts immediately. Training managers can enroll students, review accounts, pay invoices through the portal.

VARIETY

Courses are available in a wide array of wholesale baking product categories and skill levels that allows companies to enroll individual employees or bulk enrollments.

INDUSTRY RELEVANCE

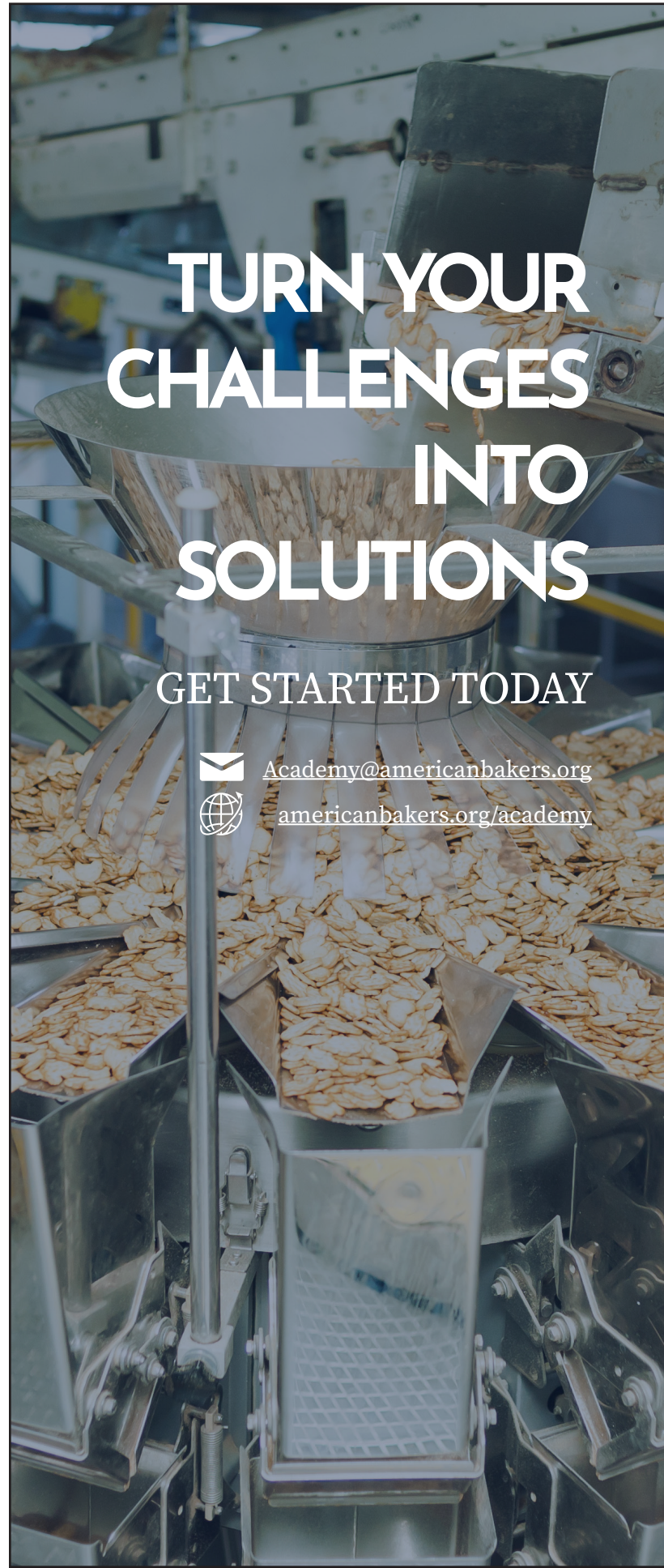
Written and developed by baking industry experts assuring course content is relevant and accurate.

COST EFFECTIVENESS

Member and non-member rates, educational programs meet your training and budget obligations.

CURRICULUM CERTIFICATES

Once an employee completes a course, they receive a certificate of graduation available for download through the portal. Training managers can also verify and download students completed courses and certificate through the online portal.



TURN YOUR CHALLENGES INTO SOLUTIONS

GET STARTED TODAY



Academy@americanbakers.org



americanbakers.org/academy

HOW TO GET STARTED

The Academy sign-up process differs whether you are an individual learner or represent a group at a baking facility/bakery. Here's how to sign up.

ENROLLMENT CATEGORIES:

A bakery or facility can fill out the enrollment form to use the academy portal and enroll as many employees as you wish, at any time. Enrolling as a company allows access to all the educational programs, enable you to track employee participation, view graduate certificates and badges, download reports, engage with employees through the academy portal, receive notifications, and more.

Getting started: Submit a [Facility Enrollment Form](#)

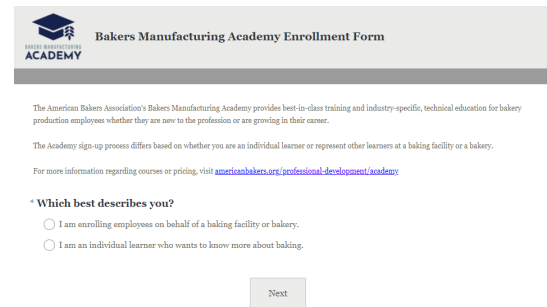
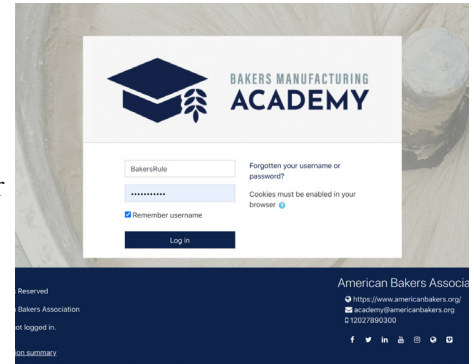
**It is FREE to activate your facility. You will receive your login information and Academy user guide to begin enrolling employees immediately.*

**While non-members and members of partner associations can enroll in courses, further instructions on access will be sent upon submission.*

Individuals can enroll in any of the available educational programs without having to go through a bakery/facility.

Getting started:

- 1: Visit the [Bakers Manufacturing Academy](#) and create an account.
2. Your account needs to be approved by an ABA staff member. You will receive an email notifying you of approval.
3. Once a team member approves your account and grants you access, you will then be sent instructions. You will be required to pre-pay for a course before starting a course.



ABA MEMBER AND PARTNER ASSOCIATION PRICING

ABA Members and partner associations Retail Bakers of America and the Baking Association of Canada receive specially-discounted ABA-Member pricing. Non-members may also enroll at increased rates.



BEGINNER TRAINING

Economical training solutions reduce in-bakery onboarding time, establish good behaviors early on and prevent bad batches. These courses are for new hires, department transfers, and cross-trained employees.

BAKING BASICS 101

Cost: ABA Members: \$50 | Non-Member: \$100

This onboarding course complements already established facility training. Students learn fundamental knowledge, skills, areas of responsibility, and behaviors essential to the operating environment within baking facilities.

LEARNING OBJECTIVES

- ✓ Workplace Safety – General Safety Guidelines that include: Machine Guards, PPEs, Equipment Safety, Work Area Safety and Sanitation tips.
- ✓ Food Safety & Hygiene – Universal Terminology, general practices, definitions, and importance of GMPs, HACCP, Allergen Control, FSMA, Hygiene (personal and behavior).
- ✓ Technical Training – Soft skills, areas of responsibility, and recommended guidelines that includes communication, equipment safety, and department operator responsibilities.

FEATURES

- Duration: 1^{1/2}-1 hour, up to two-weeks to finish
- Available Languages: English, Spanish, Portuguese (Brazil)
- Printable Glossary of Terms
- Final Test: 80% Final GPA to receive certificate

WHO SHOULD ENROLL

- New production, or supplier employees
- *Past Enrollment Titles: Line Operator, Process Tech, Production lead, QA Tech, Shift Leader, Production Manager, Supervisor, Line Lead, Tech Sales*

Production Categories: Bread, Cookies/Crackers, Sweet Goods, Tortillas

ENTRY-LEVEL TRAINING PROGRAM

Cost: ABA Members: \$150 | Non-Member: \$300

Teaches foundational knowledge to all employees new to cookie and cracker plant operations. The course modules include four lessons; Ingredients, Mixing, Forming, Baking.

LEARNING OBJECTIVES

- ✓ Ingredients – The importance of the storage, usage, and details of the many ingredients used in cookie and cracker manufacturing.
- ✓ Mixing – How temperature, time, and other mixing variables impact ingredients.
- ✓ Forming – When mixed ingredients are formed into three basic categories of baking products.
- ✓ Baking – Describe the baking process, different types of ovens, and oven operations.

FEATURES

- Duration: 4-5 hours, up to six-weeks to finish
- Available Languages: English, Spanish
- Final Test: 100% Final GPA to receive certificate

WHO SHOULD ENROLL

- New production, supplier employees, department transfers
- *Past Enrollment Titles: Line Operators, Prescale, Mixing Lead, Senior R&D Scientist, Oven Captain, Food Science Intern, QA, Production Supervisor, VP Operations, R&D*

Production Categories: Cookies/Crackers

SPECIALIZED TRAINING

The lessons provide insight into the various processes on the line, which are broken into steps or conversions including the formula, mixing and forming, baking fundamentals, and cooling, delivery, and packaging. Each lesson emphasizes the importance of having the operator follow an exact process, explaining why certain steps must be followed precisely to produce specific products.

WIRE CUT COURSE

Cost: ABA Members: \$250 | Non-Member: \$300

This program is intended for individuals responsible for producing wire cut cookies. It's also useful for those who want to gain insight into a process normally learned over time through experience.

LEARNING OBJECTIVES

- ✓ Define the term wire cut, development process, key conversions that occur within each step of the process
- ✓ Wire Cut ingredient functionality and potential allergens
- ✓ Pre and post operation check points, and additional safety and sanitation processes
- ✓ Understand mixer types, processes, and methods to achieve desired dough temperatures
- ✓ Understand the form and function of different parts of a wire cut machine and die assembly
- ✓ The baking processes that include bake time and profile
- ✓ Understanding cooling time, conveyors, and types of packaging

FEATURES

- Duration: 2 hours, up to six-weeks to finish
- Available Languages: English
- Final Test: 90% Final GPA to receive certificate

WHO SHOULD ENROLL

- Established production, supplier employees or department transfers
- *Past Enrollment Titles: Process Engineer- R&D, Food Scientist, Quality Assurance, Production Shift Manager, Line Operator, R&D Manager, Line Supervisor*

Production Categories: Cookies/Crackers

SANDWICHING COURSE

Cost: ABA Members: \$250 | Non-Member: \$300

This program is intended for individuals responsible for producing Sandwich products. It's also useful for those who want to gain insight into a process normally learned over time through experience.

LEARNING OBJECTIVES

- ✓ Define the term sandwiching, development process, key conversions that occur within each step of the process
- ✓ Sandwich creme ingredient functionality and potential allergens
- ✓ Pre and post operation check points, and additional safety and sanitation processes
- ✓ Understand the important attributes of crème consistency that facilitate the sandwiching process and provide a quality crème sandwich
- ✓ Understand the importance for proper cooling of the base cake, proper delivery, transfer, and how the base cake is correctly oriented into the sandwiching feed system
- ✓ Understand the form and function of each of the different types of sandwiching equipment

FEATURES

- 4-5 hours, up to six-weeks to finish
- Available Languages: English, Spanish
- Final Test: 100% Final GPA to receive certificate

WHO SHOULD ENROLL

- New production, supplier employees, or department transfers
- *Past Enrollment Titles: Process Engineer- R&D, Food Scientist, Quality Assurance, Production Shift Manager, Line Operator, R&D Manager, Line Supervisor*

Production Categories: Cookies/Crackers

ROTARY COURSE

Cost: ABA Members: \$250 | Non-Member: \$300

This lesson teaches the correct procedures and steps required to produce a rotary moulder product.

LEARNING OBJECTIVES

- ✓ Define the term rotary, development process, key conversions that occur within each step of the process
- ✓ Rotary cookie ingredient functionality and potential allergens
- ✓ Pre and post operation check points, and additional safety and sanitation processes
- ✓ Understand mixer types, processes, and methods to achieve desired dough temperatures
- ✓ Understand the form and function of different parts of a rotary machine and die assembly
- ✓ The baking processes that include bake time and profile
- ✓ Understanding cooling time, conveyors, and types of packaging

FEATURES

- Duration: 2 hours, up to six-weeks to finish
- Available Languages: English
- Final Test: 90% Final GPA to receive certificate

WHO SHOULD ENROLL

- Established production, supplier employees or department transfers
- *Past Enrollment Titles: Process Engineer- R&D, Food Scientist, Quality Assurance, Production Shift Manager, Line Operator, R&D Manager, Line Supervisor*

Production Categories: Cookies/Crackers

SHEETING AND LAMINATING

Cost: ABA Members: \$250 | Non-Member: \$300

This program is intended for individuals on the line who are responsible for producing sheeted crackers, department transfers, and suppliers.

LEARNING OBJECTIVES

- ✓ Define the sheeting and laminating process.
- ✓ Review the integrated dough ingredients that are critical to producing a sheeted product.
- ✓ Overview of dough mixing stages, two-stage mixing process, lamination process, laytime requirements, and how mixing affects the lamination process
- ✓ Understand how to use the equipment, and how to select the best equipment for the type of product you are producing.
- ✓ Baking operator procedures, process of baking, types of ovens and heat sources, heat profile, common oven temperature guidelines, and oven equipment
- ✓ Importance of caring for a product post-bake and how to select the appropriate equipment for your product.

FEATURES

- Duration: 4-5 hours, up to six-weeks to finish
- Available Languages: English
- Final Test: 90% Final GPA to receive certificate

WHO SHOULD ENROLL

- Established production, supplier employees or department transfers
- *Past Enrollment Titles: Process Engineer- R&D, Food Scientist, Quality Assurance, Production Shift Manager, Line Operator, R&D Manager, Line Supervisor*

Production Categories: Cookies/Crackers

TORTILLA COURSE

Cost: ABA Members: \$50 | Non-Member: \$100

The course focuses on unique product characteristics, ingredients, and processing variations used in the production of flour and corn tortillas.

LEARNING OBJECTIVES

- ✓ Explain product characteristics of flour, wheat, and corn tortillas
- ✓ Describe different production techniques for processing flour and corn tortillas.
- ✓ Identify acceptable benchmarked ranges of production settings for tortillas (equipment settings, times, temperatures, relative humidity, pH/TTA).
- ✓ Identify acceptable benchmarked ranges of production settings for tortillas (equipment settings, times, temperatures, relative humidity, pH/TTA).
- ✓ Identify common defects and probable causes

FEATURES

- Duration: 3 hours, up to six-weeks to finish
- Available Languages: English
- Final Test: 90% Final GPA to receive certificate

WHO SHOULD ENROLL

- Established production, supplier employees or department transfers
- *Past Enrollment Titles: Senior Vice President, Site Leader, Senior R&D Bakery Technologist, Food Scientist, Quality Assurance, Production Shift Manager, Line Operator, R&D Manager, Line Supervisor*

Production Categories: Tortillas

VARIETY HEARTH BREADS

Cost: ABA Members: \$50 | Non-Member: \$100

The course focuses on unique product characteristics, ingredients, and processing variations used in the production of wheat, whole wheat, multi-grain, rye, and raisin breads.

LEARNING OBJECTIVES

- ✓ Define and identify unique finished product attributes of hearth and sourdough breads
- ✓ Describe key processing points for producing hearth and sourdough breads
- ✓ Understand the requirements and the characteristics created when using steam on Hearth bread products
- ✓ List acceptable benchmarked ranges of production settings for sourdough pan breads
- ✓ Recall ingredients and percentages in sourdough bread formula
- ✓ Discuss differences in processing of sourdough breads compared to white pan bread

FEATURES

- Duration: 3 - 4 hours, up to six-weeks to finish
- Available Languages: English
- Final Test: 100% Final GPA to receive certificate

WHO SHOULD ENROLL

- Established production, supplier employees or department transfers
- *Past Enrollment Titles: Engineering Manager, Production Supervisor, Systems Integration Engineer, Quality Assurance, Production Shift Manager, Line Operator, R&D Manager, Line Supervisor*

Production Categories: Bread

HAMBURGER/HOTDOG BUNS COURSE

Cost: ABA Members: \$50 | Non-Member: \$100

This course covers the unique process variations for hamburger/hotdog bun production and includes acceptable benchmark ranges variations regarding formulations, product characteristics, and processing conditions needed.

LEARNING OBJECTIVES

- ✓ Identify unique product characteristics of hamburger and hot dog buns.
- ✓ Identify ingredient changes for hamburger/hot dog buns formulations.
- ✓ Identify unique process variations for hamburger/hot dog bun production (mixing, dividing, rounding, proofing, moulding, topping, baking, cooling, and packaging).
- ✓ Identify acceptable benchmarked ranges of production settings for hamburger/hot dog buns (equipment settings, times, temperatures, relative humidity, pH/TTA).
- ✓ Identify characteristics of “good” finished product – internal and external characteristics.

FEATURES

- Duration: 3 hours, up to six-weeks to finish
- Available Languages: English
- Final Test: 100% Final GPA to receive certificate

WHO SHOULD ENROLL

- Established production, supplier employees or department transfers
- *Past Enrollment Titles: Quality Assurance, Production Shift Manager, Line Operator, R&D Manager*

Production Categories: Bread

BREAD QUALITY

Cost: ABA Members: \$50 | Non-Member: \$100

This course provides an in-depth understanding of the tests and evaluation processes used to ensure the quality and consistency of white pan bread products. The course covers tests conducted on flour, including those listed on the Flour Certificate of Analysis (COA), and those used to determine the rheological properties of flour. It also covers the process and forms used to conduct finished product evaluation and common faults seen in pan breads.

LEARNING OBJECTIVES

- ✓ Use ash, moisture, protein, and falling number test results to identify needed corrections to the process or formulation.
- ✓ Compare typical dough rheology tests.
- ✓ Determine possible corrections for off-target pH/TTA readings.
- ✓ Identify quality attributes of white pan bread.
- ✓ Identify common finished product faults for white pan bread.

FEATURES

- Duration: 3 hours, up to six-weeks to finish
- Available Languages: English & Spanish
- Final Test: 80% Final GPA to receive certificate

WHO SHOULD ENROLL

- Established production, supplier employees or department transfers

Production Categories: Bread

ADVANCED TRAINING

Graduates of the courses will possess the technical knowledge and best practice information necessary to supervise, bakery shift, department, or facility.

COOKIE & CRACKER MANUFACTURING COURSE

Cost: ABA Members: \$1995 | Non-Member: \$4000

Designed by industry experts, the Course is the authoritative source on the cookie and cracker bakery operation. The course is a hybrid course, students receive two textbooks, and all testing components are available through the online academy portal. Students will develop a solid understanding of the main principles of an effective manufacturing process. The self-study program covers the complete cookie and cracker manufacturing process and emphasizes the practical application of material learned. The testing component includes multiple-choice questions and work project. The work projects are designed for students to utilize what they learn directly in the plant.

The course follows the manufacturing process flow:

- ✓ Ingredients — product purpose, physical and chemical characteristics, delivery, assembly and storage
- ✓ Mixing
- ✓ Baking
- ✓ Cooling
- ✓ Packaging
- ✓ Forming — typical and specialty products
- ✓ Safety and sanitation
- ✓ Equipment maintenance
- ✓ Quality systems
- ✓ Environmental management

FEATURES

- Hybrid Course with textbooks and online testing ability
- Duration: 6 months, up to two-years to finish.
- Available Languages: English
- Final Test: 90% Final GPA to receive certificate



PRE-REQUISITE: Beginner Entry-Level Training Program

WHO SHOULD ENROLL

- For those who want to manage or supervise and bakery shift, department, or facility
- *Past Enrollment Titles: Product Development, Manufacturing Manager, Biochemical Engineer, R&D Technologist, Region Sales Manager, Operations Manager, Food Technologist, QA, Production Coordinator, Team Leader Manufacturing, Continuous Improvement Engineer, Development Engineer 1*

Textbook Chapters:

1. Wheat and Wheat Flour
2. Carbohydrates — Physical and Chemical Properties
3. Sweetener Manufacturing and Related Compounds
4. Physical and Chemical Properties of Fats and Oils
5. Classification of Fats and Related Compounds
6. Dairy Products and Egg Products
7. The Leavenings Process
8. Emulsifiers and Antioxidants
9. Chocolate and Cocoa
10. Flavoring and Coloring Materials
11. Starch, Proteins, Enzymes, Salt, Fruits and Nuts
12. Ingredient Delivery and Storage
13. Ingredient Assembly
14. Mixing
15. Fermented Dough Products —
16. Soda Crackers
17. Chemically Leavened Crackers
18. Wire-Cut and Deposit Cookies
19. Extruded Cookies
20. Rotary Molder Cookies
21. Cutting Machine Products
22. Baking
23. Post-Baking Operations
24. Handling Cookies and Crackers from Cooling to Packaging Machines
25. Sugar Wafers and Ice Cream Cones
26. Marshmallow Products
27. Creme Sandwich Products
28. Enrobed Cookies
29. Packages and Packaging Equipment
30. Machinery Maintenance and Care
31. Sanitation and Safety
32. Quality Management
33. Environmental Management

Production Categories:
Cookies/Crackers



BREAD MANUFACTURING PROCESSING

Cost: ABA Members: \$250 | Non-Member: \$500

The course is a fully digitized course offered through the academy portal that focuses on each step of the manufacturing process, from scaling through the packaging of the finished product. The course is divided into two sections comprised of 20 modules.

The Course follows the manufacturing process flow:

- ✓ Explain the purpose of each step of the manufacturing process.
- ✓ Describe dough and finished product characteristics of over-or under
- ✓ Performing each step in the manufacturing process.
- ✓ Identify corrections for over-or under-performing each step in the manufacturing process.
- ✓ Identify critical quality production controls for each step in the manufacturing process.
- ✓ Identify common equipment used for each step in the manufacturing process.
- ✓ Explain each unique step of each dough system.
- ✓ Identify acceptable benchmark ranges for each dough system (unique ingredients, time, temperature, equipment, pH/TTA, etc.).
- ✓ Explain common adjustments for each dough system.
- ✓ Identify the advantages and disadvantages of each dough system
- ✓ Compare and contrast the dough systems.
- ✓ Describe how dough temperature (and age) affects the manufacturing process.
- ✓ Identify common adjustments to each manufacturing process step.

FEATURES

- Fully digitized through the Academy Portal
- Duration: 8 hours, up to six-weeks to finish.
- Available languages: English & Spanish
- Final Test: 80% Final GPA to receive certificate.



WHO SHOULD ENROLL

- For those who want to manage or supervise and bakery shift, department, or facility

Module Chapters:

Manufacturing Process – Part 1:

1. Manufacturing Introduction
2. Ingredient Scaling
3. Mixing
4. Fermentation
5. Dough Systems: Sponge and Dough
6. Dough Systems: Liquid Fermentation
7. Dough Systems Straight Dough
8. Dough Systems: No Time Dough
9. Dough Systems: Continuous Mix
10. Dough Systems: Compare Dough Systems

Manufacturing Process – Part 2:

11. Dividing
12. Rounding
13. Intermediate Proof
14. Sheeting and Moulding
15. Panning
16. Proofing
17. Topping and Splitting
18. Baking
19. Depanning and Cooling
20. Packaging

Production Categories: Bread

Review - Fermentation Rate

This course focuses on the manufacturing process for pan bread, using the sponge and dough-system to illustrate. Time Estimate: 5 minutes

PH AND TTA
TEMPERATURE
FOOD SUPPLY
INGREDIENT WATER
INGREDIENTS

Revisión - Fermento líquido

El curso comienza con la medición, la mezcla y la fermentación de los ingredientes y presenta información común a todos los sistemas de masa.

FERMENTACIÓN
PASOS
TIEMPOS
ANTES DE MEZCLAR
ES BENEFICIOSO



DIGITAL BADGE SYSTEM

LEARN IT. EARN IT.

GRADUATE-BASED DIGITAL BADGES



COLOR LEVEL RATING SYSTEM



WHAT IS BAKERS MANUFACTURING ACADEMY DIGITAL BADGE?

A digital representation of your significant professional accomplishments, combined with a verifiable description of the specific knowledge and skills required to earn it.



LINKEDIN UNIVERSITY

The Bakers Manufacturing Academy is a registered University on LinkedIn.

What does that mean? Students can now mark themselves as a graduate of any of the academy's educational programs and be featured as alumni within the academy's company profile.

By updating one's profile and adding your education experience, you'll be harnessing the power of the LinkedIn platform and tap into an expansive network of professionals, companies, and groups within the baking industry and beyond.

Follow the Bakers Manufacturing Academy on LinkedIn by searching for 'Bakers Manufacturing Academy' or copy and pasting this link: <https://linkedin.com/school/bakersmanufacturingacademy/>

ALUMNI PLATFORM





NEXTGEN BAKER

DEVELOPING THE INDUSTRY'S LEADERS

NextGenBaker is the **premiere program** developing the leadership of the **wholesale baking industry** – baker and supplier executives of all experience levels with growth potential.



PROFESSIONAL DEVELOPMENT

Reflecting its core mission, NextGenBaker activities include a strong focus on development of leadership skills with insights from experts both inside and outside the baking industry.



PUBLIC POLICY ENGAGEMENT

Members learn how current public policy decisions impact the baking industry and gain firsthand experience of the value of active participation in the political process.



RELATIONSHIP BUILDING

Develop a strong network of career-long relationships with peers from baker and allied ABA Member companies. NextGenBakers also have the opportunity to engage in special networking events with longtime leaders of the baking industry.

Key Stats from Baking Workforce Skills Gap Study

78%

Baking companies with shortage of engineering/maintenance employees

60%

Increase in skilled positions from 2011-2016

58%

Increased use automation/robotics from 2011-2016, need for highly skilled employees

The Workforce Gap in U.S. Commercial Baking: Trends, Challenges and Solutions

INDUSTRY TRENDS EDUCATION

Members are updated on the latest baking industry trends to maintain an awareness of potential impacts to their company and opportunities to contribute to business innovation and growth.





LEADERSHIP DEVELOPMENT FOR FRONT LINE PROFESSIONALS

BAKING COMPANY SUPERVISOR TRAINING

ABA's Leadership Development for Front Line Professionals, produced in partnership with Hearthsides University, is the baking industry's go-to training for employees encountering new challenges as rising plant-level supervisors.

This program demystifies the leadership skills at the frontline. It supports employees recently promoted to leadership positions understand how to successfully manage a team. Attendees learn how to deal with difficult employee situations, how to deal with safety investigations, how to address recognition in the workplace, and how to lead in a way that drives organizational success.

MEETING A CRITICAL NEED

83% of the baking industry struggles with undertrained front line supervision. ABA meets the critical training needs of employees on the front lines with our bakery-specific specialized supervisor training program.

The three-day Front Line Professionals course supports ABA Members in developing, empowering, motivating, and retaining new and rising plant-level supervisors.

CLASS MODULES



“I absolutely can use these takeaways in my job right away. There was nothing that was too complex where you didn’t feel like you could start that today. The program was really geared toward front line leaders...Having the programming targeted to bakers kept us more engaged.”

- PRODUCTION SUPERVISOR, LARGE BAKING COMPANY



Limited class sizes enable meaningful

interactions between other participants and the course's expert leadership development facilitators. **Sessions fill up quickly for this popular and highly-rated training course.**

LEARN MORE AND ENROLL TODAY

americanbakers.org/professional-development/supervisor-training