Advanced Gluten-Free Baking and Processing Training Course

Professional Development Training Course Outline

Category	Food processing and Technology	**Duration**	10 Days
Base Fee	$3,000 USD	**Delivery Mode**	Online / On-site Hybrid

Course Introduction

Advanced Gluten-Free Baking and Processing Training course is designed for food professionals, culinary experts, nutritionists, and bakers who are eager to master the science and techniques behind gluten-free product development. With the rise in demand for gluten-free food due to celiac disease, gluten sensitivity, and lifestyle choices, this program equips participants with advanced knowledge on innovative baking, ingredient substitution, product formulation, and food safety standards. The training integrates practical skills, trending gluten-free recipes, advanced processing technology, and global food compliance requirements to ensure professionals can thrive in the competitive bakery industry.

This course highlights the future of sustainable gluten-free baking with a focus on nutritional balance, clean label formulations, plant-based alternatives, and high-quality texture retention in gluten-free products. Participants will learn to optimize baking processes, enhance product shelf-life, apply advanced flour technologies, and develop market-ready gluten-free baked goods. Through case studies and interactive sessions, learners gain real-world problem-solving experience, equipping them with the expertise to lead innovation in gluten-free food production across diverse markets.

Programme Curriculum

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Course Objectives

1. Understand the fundamentals of gluten-free baking science and food chemistry.
2. Explore advanced gluten-free flour technologies and innovative ingredient alternatives.
3. Gain expertise in gluten-free dough handling and batter formulation.
4. Apply food safety and hygiene standards in gluten-free food processing.
5. Learn techniques to enhance the texture, taste, and appearance of gluten-free baked products.
6. Analyze international market trends in gluten-free product development.
7. Implement clean-label and plant-based gluten-free product strategies.
8. Optimize baking equipment and processing technology for gluten-free production.
9. Explore allergen management and cross-contamination control in gluten-free facilities.
10. Learn advanced product packaging and shelf-life extension methods.
11. Understand nutritional requirements and fortification in gluten-free products.
12. Apply business and marketing strategies for gluten-free food startups.
13. Conduct research-based innovation in gluten-free product development.

Organizational Benefits

- Increased knowledge in advanced gluten-free baking technology.
- Enhanced innovation in product development.
- Improved quality assurance and compliance with food safety standards.
- Competitive advantage in the global gluten-free food market.
- Better understanding of consumer behavior and gluten-free trends.
- Strengthened organizational capacity in allergen management.
- Opportunity to expand product lines with sustainable gluten-free options.
- Increased operational efficiency in gluten-free production.
- Greater brand recognition in the health-conscious food industry.
- Long-term profitability through high-demand product development.

Target Audiences

1. Professional bakers and pastry chefs
2. Food technologists and product developers
3. Nutritionists and dietitians
4. Culinary instructors and trainers
5. Food safety and quality assurance officers
6. Food entrepreneurs and startups
7. Research and development specialists
8. Manufacturing and processing managers

Course Duration: 10 days

Course Modules

Module 1: Fundamentals of Gluten-Free Baking

- Introduction to gluten-free baking science
- Understanding gluten substitutes
- Role of starches and hydrocolloids
- Basic formulations and testing methods
- Nutritional considerations
- Case study: Transitioning traditional bakery recipes to gluten-free

Module 2: Advanced Flour and Ingredient Technologies

- Innovations in gluten-free flour development
- Plant-based alternatives and fortification
- Role of proteins in structure building
- Managing hydration and consistency
- Ingredient blending techniques
- Case study: Comparative analysis of rice, sorghum, and millet flours

Module 3: Dough Handling and Batter Formulation

- Differences between gluten and gluten-free dough
- Hydration and mixing processes
- Gas retention techniques
- Improving elasticity and volume
- Batter aeration methods
- Case study: Formulating gluten-free bread with optimal texture

Module 4: Food Safety and Hygiene Standards

- HACCP principles in gluten-free facilities
- Allergen control systems
- Sanitation practices and tools
- Traceability in production
- Regulatory compliance
- Case study: Managing allergen-free production lines

Module 5: Texture and Sensory Enhancement

- Improving crumb structure
- Balancing softness and chewiness
- Enhancing crust quality
- Flavor development strategies
- Consumer sensory evaluation methods
- Case study: Developing gluten-free cookies with improved mouthfeel

Module 6: International Market Trends

- Global gluten-free market overview

- Emerging consumer preferences
- Market segmentation strategies
- Competitor analysis
- Innovations in gluten-free product launches
- Case study: Successful global gluten-free bakery brands

Module 7: Clean Label and Plant-Based Strategies

- Introduction to clean-label products
- Replacing synthetic additives
- Plant-based protein integration
- Sustainable ingredient sourcing
- Consumer-driven labeling practices
- Case study: Developing clean-label gluten-free snacks

Module 8: Processing Technology and Equipment

- Baking equipment adaptations for gluten-free products
- Thermal processing optimization
- Mixing and extrusion technologies
- Scaling from pilot to mass production
- Quality control parameters
- Case study: Implementing extrusion technology in gluten-free pasta production

Module 9: Allergen Management and Cross-Contamination

- Identifying allergenic ingredients
- Facility zoning for allergen control
- Cleaning and sanitization validation
- Employee training for allergen awareness
- Auditing allergen management systems
- Case study: Allergen contamination prevention in bakeries

Module 10: Packaging and Shelf-Life Optimization

- Packaging materials for gluten-free goods
- Modified atmosphere packaging
- Shelf-life testing methods
- Preservatives and natural alternatives
- Labeling compliance standards
- Case study: Extending shelf-life of gluten-free bread

Module 11: Nutritional Fortification

- Micronutrient deficiencies in gluten-free diets
- Fortifying with vitamins and minerals
- Fiber enrichment methods
- Protein enhancement strategies
- Designing balanced gluten-free products
- Case study: Developing fortified gluten-free breakfast cereals

Module 12: Business and Marketing Strategies

- Building gluten-free product brands
- Marketing to health-conscious consumers
- E-commerce and digital marketing
- Pricing and distribution strategies
- Consumer trust and loyalty building
- Case study: Marketing strategies of a gluten-free bakery startup

Module 13: Research and Innovation

- Identifying gaps in gluten-free research
- Developing novel baking processes
- Collaboration with universities and labs
- Applying sensory science research
- Prototyping innovative products
- Case study: Innovations in gluten-free frozen dough technology

Module 14: Hands-On Baking Practicum

- Practical bread baking session
- Cake and pastry development
- Snack bar formulation
- Sensory evaluation of products
- Troubleshooting baking challenges
- Case study: Recipe development and market testing project

Module 15: Capstone Project and Presentation

- Group-based project development
- Real-world problem-solving application
- Product design and presentation
- Evaluation and feedback session
- Future career opportunities discussion
- Case study: Market launch simulation of gluten-free product

Training Methodology

- Instructor-led presentations and guided discussions
- Practical baking sessions and laboratory experiments
- Real-world case studies and industry examples
- Group activities, projects, and peer learning
- Use of digital resources, videos, and e-learning platforms

Register as a group from 3 participants for a Discount

Send us an email: info@fineskilltrainingcenter.org or call *+254769199797*

Certification

Upon successful completion of this training, participants will be issued with a globally- recognized certificate.

Tailor-Made Course

We also offer tailor-made courses based on your needs.

Key Notes

a. The participant must be conversant with English.

b. Upon completion of training the participant will be issued with an Authorized Training Certificate

c. Course duration is flexible and the contents can be modified to fit any number of days.

d. The course fee includes facilitation training materials, 2 coffee breaks, buffet lunch and A Certificate upon successful completion of Training.

e. One-year post-training support Consultation and Coaching provided after the course.

f. Payment should be done at least a week before commence of the training, to Fineskill Training Center account, as indicated in the invoice so as to enable us prepare better for you.

Upcoming Scheduled Sessions

Start Date	End Date	Location	Price
23 Nov 2026	04 Dec 2026	Online	$2,000
23 Nov 2026	04 Dec 2026	Physical	$3,000
23 Nov 2026	04 Dec 2026	Physical	$6,000
23 Nov 2026	04 Dec 2026	Physical	$6,000
23 Nov 2026	04 Dec 2026	Physical	$12,000
23 Nov 2026	04 Dec 2026	Physical	$9,000
23 Nov 2026	04 Dec 2026	Physical	$12,000
23 Nov 2026	04 Dec 2026	Physical	$12,000

Ready to enroll or request a customized program? Book online or contact us:

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