Food Packaging Engineering Training Course

Professional Development Training Course Outline

Category	General Training	**Duration**	5 Days
Base Fee	$1,500 USD	**Delivery Mode**	Online / On-site Hybrid

Course Introduction

Food Packaging Engineering Training Course is designed to equip professionals with advanced knowledge and practical skills in modern food packaging technologies, sustainable packaging solutions, smart packaging systems, food safety compliance, and packaging innovation. With the rapid growth of the food processing industry, e-commerce food delivery, and global supply chains, packaging has become a critical factor in ensuring product protection, shelf-life extension, consumer convenience, regulatory compliance, and brand differentiation. This comprehensive training program covers the latest developments in food-grade materials, biodegradable packaging, intelligent packaging, packaging automation, and digital quality assurance systems.

Participants will gain hands-on exposure to packaging design, material selection, packaging machinery, food preservation technologies, sustainability frameworks, and international food packaging standards. The course integrates industry best practices, real-world case studies, and emerging technologies such as IoT-enabled packaging, active packaging, modified atmosphere packaging (MAP), recyclable packaging, and circular economy principles. Upon completion, learners will be capable of designing efficient, cost-effective, environmentally responsible, and consumer-centric packaging solutions for diverse food products across global markets.

Programme Curriculum

Food Packaging Engineering Training Course

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Course Duration

5 days

Course Objectives

After completing this training, participants will be able to:

1. Understand advanced Food Packaging Engineering principles and applications.
2. Apply Sustainable Packaging Solutions for modern food industries.
3. Design packaging systems that improve Shelf-Life Extension.
4. Implement Smart Packaging Technologies and digital monitoring systems.
5. Evaluate packaging materials using Food Safety Compliance requirements.
6. Utilize Modified Atmosphere Packaging (MAP) techniques effectively.
7. Integrate Circular Economy Packaging practices into packaging strategies.
8. Analyze Packaging Automation and Industry 4.0 applications.
9. Develop Eco-Friendly and Biodegradable Packaging solutions.
10. Conduct Packaging Performance Testing and Validation.
11. Apply international Regulatory and Packaging Standards.
12. Optimize Supply Chain Packaging Efficiency and logistics performance.
13. Implement innovative Packaging Design and Consumer Experience strategies.

Target Audience

1. Food Packaging Engineers
2. Food Processing Professionals
3. Quality Assurance Managers
4. Production Supervisors
5. Packaging Technologists
6. R&D Specialists
7. Food Safety and Compliance Officers
8. Supply Chain and Logistics Professionals

Course Modules

Module 1: Fundamentals of Food Packaging Engineering

- Principles of food packaging systems
- Functions and requirements of food packaging
- Packaging lifecycle management

- Packaging design fundamentals
- Food packaging industry trends
- **Case Study:** Analysis of packaging optimization in a multinational ready-to-eat food manufacturing facility.

Module 2: Food Packaging Materials and Selection

- Plastic packaging materials
- Paper and paperboard packaging
- Metal packaging applications
- Glass packaging technologies
- Material selection criteria
- **Case Study:** Comparative assessment of recyclable versus conventional packaging materials for beverage products.

Module 3: Food Safety and Regulatory Compliance

- Food contact material regulations
- Global packaging compliance requirements
- HACCP integration in packaging
- Migration testing procedures
- Packaging risk assessment
- **Case Study:** Investigation of packaging contamination incidents and corrective actions.

Module 4: Sustainable and Circular Packaging Solutions

- Biodegradable packaging technologies
- Compostable packaging systems
- Circular economy implementation
- Carbon footprint reduction strategies
- Sustainable material innovation
- **Case Study:** Transition of a food manufacturer from single-use plastics to sustainable packaging systems.

Module 5: Advanced Food Preservation Packaging Technologies

- Modified Atmosphere Packaging (MAP)
- Vacuum packaging systems
- Active packaging technologies
- Intelligent packaging applications
- Shelf-life enhancement techniques
- **Case Study:** Shelf-life improvement of fresh produce using active packaging technology.

Module 6: Packaging Machinery and Automation

- Packaging equipment selection
- Filling and sealing technologies
- Automated packaging lines
- Industry 4.0 packaging systems
- Packaging productivity optimization
- **Case Study:** Automation deployment in a high-volume dairy packaging facility.

Module 7: Packaging Testing, Quality Control and Validation

- Mechanical testing methods
- Barrier property evaluation
- Packaging integrity testing
- Quality assurance procedures
- Packaging validation protocols
- **Case Study:** Failure analysis and quality improvement of snack food packaging.

Module 8: Packaging Innovation, Digitalization and Future Trends

- Smart packaging systems
- IoT-enabled packaging solutions
- Digital traceability technologies
- Consumer-centric packaging innovation
- Future trends in food packaging
- **Case Study:** Implementation of QR-code-based smart packaging for product authentication and consumer engagement.

Training Methodology

This course employs a participatory and hands-on approach to ensure practical learning, including:

- Interactive lectures and presentations.
- Group discussions and brainstorming sessions.
- Hands-on exercises using real-world datasets.
- Role-playing and scenario-based simulations.
- Analysis of case studies to bridge theory and practice.
- Peer-to-peer learning and networking.
- Expert-led Q&A sessions.
- Continuous feedback and personalized guidance.

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	27 Nov 2026	Online	$1,000
23 Nov 2026	27 Nov 2026	Physical	$1,500
23 Nov 2026	27 Nov 2026	Physical	$3,000
23 Nov 2026	27 Nov 2026	Physical	$3,000
23 Nov 2026	27 Nov 2026	Physical	$6,000
23 Nov 2026	27 Nov 2026	Physical	$4,500
23 Nov 2026	27 Nov 2026	Physical	$6,000
23 Nov 2026	27 Nov 2026	Physical	$6,000

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

Register Online Now

Email: info@fineskilltrainingcenter.com | Website: www.fineskilltrainingcenter.com