Food Waste Valorization and Upcycling 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

Food Waste Valorization and Upcycling Training Course is designed to empower professionals and organizations with cutting-edge knowledge and hands-on strategies to transform food waste into valuable resources. With global concerns on sustainability, circular economy, and climate change, this training provides the essential tools to reduce environmental impact, enhance resource efficiency, and boost organizational sustainability practices. Through innovative techniques and practical learning, participants will gain insights into food waste management, upcycling methods, and the development of sustainable food systems.

This course integrates advanced case studies, trending research insights, and industry applications that align with the global shift towards zero-waste policies, sustainable supply chains, and eco-innovation. By the end of the program, participants will not only understand the importance of food waste valorization but also apply practical frameworks to create value-added products, reduce costs, and meet sustainability targets in alignment with SDGs and circular economy principles.

Programme Curriculum

Food Waste Valorization and Upcycling Training Course

Introduction

Food Waste Valorization and Upcycling Training Course is designed to empower professionals and organizations with cutting-edge knowledge and hands-on strategies to transform food waste into valuable resources. With global concerns on sustainability, circular economy, and climate change, this training provides the essential tools to reduce environmental impact, enhance resource efficiency, and boost organizational sustainability practices. Through innovative techniques and practical learning, participants will gain insights into

food waste management, upcycling methods, and the development of sustainable food systems.

This course integrates advanced case studies, trending research insights, and industry applications that align with the global shift towards zero-waste policies, sustainable supply chains, and eco-innovation. By the end of the program, participants will not only understand the importance of food waste valorization but also apply practical frameworks to create value-added products, reduce costs, and meet sustainability targets in alignment with SDGs and circular economy principles.

Course Objectives

1. Understand the fundamentals of food waste valorization and upcycling concepts.
2. Identify global trends and challenges in food waste management and circular economy.
3. Explore innovative upcycling techniques to convert waste into high-value products.
4. Learn practical strategies to implement zero-waste initiatives in organizations.
5. Gain knowledge on regulatory frameworks and compliance for food waste reduction.
6. Develop sustainable food supply chain management systems.
7. Examine technologies driving food waste recycling and upcycling.
8. Apply case-based learning to real-world food waste valorization projects.
9. Foster entrepreneurial approaches in sustainable food systems.
10. Assess environmental, social, and economic impacts of food waste valorization.
11. Strengthen capacity in designing sustainable packaging from upcycled materials.
12. Build innovative solutions aligned with global sustainability and SDG goals.
13. Enhance stakeholder engagement for food waste minimization and resource recovery.

Organizational Benefits

1. Improved corporate sustainability performance.
2. Enhanced compliance with global environmental standards.
3. Cost reduction through waste-to-value practices.
4. Strengthened corporate social responsibility image.
5. Access to innovative business opportunities in circular economy markets.
6. Increased stakeholder trust and brand loyalty.
7. Development of sustainable product lines from food waste.
8. Better resource efficiency and operational resilience.
9. Contribution to climate change mitigation efforts.
10. Competitive advantage in sustainability-driven industries.

Target Audiences

1. Sustainability managers and officers
2. Food industry professionals
3. Environmental consultants
4. Researchers and academicians
5. Entrepreneurs and innovators in circular economy
6. Policy makers and regulators
7. Non-governmental organizations (NGOs) focused on environment
8. Students pursuing sustainability, food science, or environmental studies

Course Duration: 10 days

Course Modules

Module 1: Introduction to Food Waste and Global Challenges

- Overview of global food waste statistics and impacts
- Environmental, social, and economic dimensions of waste
- Drivers of food waste in production and consumption
- Global sustainability frameworks addressing food waste
- Circular economy and zero-waste initiatives
- Case study: Global food waste reduction initiatives

Module 2: Fundamentals of Food Waste Valorization

- Definition and scope of food waste valorization
- Value creation from waste streams
- Key concepts in waste hierarchy and resource recovery
- Importance of life cycle analysis in waste management
- Techniques for assessing food waste potential
- Case study: Transformation of fruit peels into functional ingredients

Module 3: Upcycling Techniques and Practices

- Innovative upcycling approaches in food industries
- Conversion of by-products into high-value materials
- Fermentation and biotechnological methods for waste valorization
- Nutrient recovery and food fortification opportunities
- Sustainable packaging solutions from waste streams
- Case study: Brewing industry waste upcycling into animal feed

Module 4: Regulatory and Policy Frameworks

- International policies on food waste management
- Compliance with food safety regulations
- Waste management legislations and standards
- Incentives for circular economy adoption
- Reporting and monitoring mechanisms
- Case study: EU food waste directives and industry adaptation

Module 5: Sustainable Supply Chain and Food Waste

- Supply chain inefficiencies contributing to waste
- Strategies for sustainable procurement and logistics
- Cold chain management and waste reduction
- Integration of sustainability KPIs in supply chains
- Digital tools for supply chain transparency
- Case study: Retail industry approaches to reducing food waste

Module 6: Technology and Innovation in Food Waste Valorization

- Smart technologies for waste monitoring
- Artificial intelligence in food waste prediction
- Bioprocessing technologies for resource recovery
- Waste-to-energy innovations
- Blockchain for waste traceability and accountability

- Case study: AI-enabled food waste prediction in hospitality

Module 7: Environmental and Economic Impact Assessment

- Measuring carbon footprint reduction
- Cost-benefit analysis of waste valorization projects
- Social return on investment (SROI) in food waste management
- Environmental impact assessment methodologies
- Tools for measuring circularity performance
- Case study: Economic gains from waste-to-compost initiatives

Module 8: Sustainable Food Product Development

- Identifying opportunities for upcycled food products
- Product development lifecycle for upcycled products
- Consumer behavior and acceptance of sustainable foods
- Branding and marketing strategies for green products
- Food safety considerations in upcycled product design
- Case study: Upcycled flour from brewing by-products

Module 9: Entrepreneurship in Food Waste Valorization

- Business models for food waste start-ups
- Funding opportunities in circular economy
- Scaling innovative solutions for market entry
- Collaborations and partnerships in the waste valorization sector
- Risk management in sustainable ventures
- Case study: Start-up transforming coffee waste into bio-materials

Module 10: Food Waste and Climate Change Nexus

- Contribution of food waste to GHG emissions
- Strategies for climate-smart food waste management
- Integration of carbon credits in food waste valorization
- Climate resilience through waste valorization projects
- Adaptation of climate policies in waste reduction
- Case study: Composting initiatives reducing methane emissions

Module 11: Upcycling into Non-Food Products

- Applications of food waste in cosmetics and pharmaceuticals
- Bio-materials and biodegradable plastics from waste
- Textile industry applications of food waste by-products
- Nutrient extraction for fertilizers
- Emerging trends in non-food upcycling markets
- Case study: Banana fiber upcycled into sustainable textiles

Module 12: Stakeholder Engagement and Collaboration

- Building partnerships for food waste valorization projects
- Community involvement in sustainable practices
- Public-private partnerships in food waste management

- Corporate collaboration in reducing supply chain waste
- Role of NGOs in waste reduction initiatives
- Case study: Community-led upcycling projects in developing countries

Module 13: Sustainable Packaging and Design Innovation

- Design principles for sustainable packaging
- Materials innovation from food waste
- Reducing packaging waste in food distribution
- Eco-friendly labeling and certification schemes
- Extended producer responsibility for packaging waste
- Case study: Packaging from mushroom-based materials

Module 14: Monitoring and Evaluation of Food Waste Projects

- Key performance indicators in waste valorization
- Data-driven approaches to project evaluation
- Continuous improvement in waste management strategies
- Reporting sustainability outcomes to stakeholders
- Benchmarking best practices globally
- Case study: Evaluation of corporate zero-waste initiatives

Module 15: Future Trends and Global Perspectives

- Emerging research in food waste valorization
- Role of digital transformation in waste reduction
- Global alliances for sustainable food systems
- Predictions for the future of circular economy
- Opportunities for international collaborations
- Case study: Global South innovations in food waste valorization

Training Methodology

- Interactive lectures and expert presentations
- Group discussions and collaborative learning
- Case study analysis and real-world applications
- Hands-on practical sessions and simulations
- Industry guest speakers and knowledge sharing
- Field visits or virtual tours of best practice sites

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:

Register Online Now

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