Oilseed Processing and Refining Technology Training Course

Professional Development Training Course Outline

Category	Food processing and Technology	**Duration**	5 Days
Base Fee	$1,500 USD	**Delivery Mode**	Online / On-site Hybrid

Course Introduction

Oilseed processing and refining technology is a critical component of the agribusiness and food processing industry, offering immense potential for value addition and sustainable production. Oilseed Processing and Refining Technology Training Course provides comprehensive insights into the latest techniques and innovations in oilseed extraction, refining, and quality optimization. Participants will gain hands-on knowledge of industrial machinery, process optimization, and regulatory standards, ensuring efficient operations and high-quality output. With the global demand for edible oils, biofuels, and industrial applications rising, mastering oilseed processing technology has become more crucial than ever.

The course emphasizes both theoretical knowledge and practical applications, equipping professionals with the skills to address real-world challenges in oilseed processing. Participants will explore critical areas such as mechanical pressing, solvent extraction, degumming, bleaching, deodorization, and quality control, supported by real-life case studies. By the end of the program, participants will have a clear understanding of production workflows, safety protocols, energy efficiency measures, and emerging technologies in the sector, preparing them to contribute to organizational growth and operational excellence.

Programme Curriculum

Oilseed Processing and Refining Technology Training Course

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Course Objectives

1. Understand the fundamentals of oilseed biology and chemistry.
2. Learn advanced mechanical and solvent extraction techniques.
3. Gain expertise in oil refining processes including degumming, bleaching, and deodorization.
4. Analyze and optimize oil yield and quality parameters.
5. Develop skills in process monitoring and quality control standards.
6. Explore waste management and by-product utilization in oilseed processing.
7. Understand regulatory standards, food safety, and compliance.
8. Master energy-efficient and sustainable oil extraction methods.
9. Learn the principles of plant layout and industrial machinery maintenance.
10. Apply troubleshooting techniques for process and equipment issues.
11. Evaluate new technologies and innovations in oilseed processing.
12. Enhance decision-making skills in operational management and production planning.
13. Implement cost-effective and high-efficiency strategies for oil refining operations.

Organizational Benefits

- Improved oil extraction efficiency and yield optimization.
- Enhanced product quality and compliance with international standards.
- Reduced operational waste and energy consumption.
- Better maintenance and reliability of processing equipment.
- Strengthened employee technical competence.
- Enhanced troubleshooting and problem-solving capabilities.
- Increased production throughput and reduced downtime.
- Improved sustainability and environmental responsibility.
- Streamlined production workflow and process integration.
- Competitive advantage through adoption of best practices and latest technology.

Target Audiences

1. Production Managers in oilseed processing plants.
2. Chemical and Process Engineers.
3. Quality Assurance and Food Safety Professionals.
4. Technical Supervisors in edible oil industries.
5. Research and Development personnel.
6. Operations and Maintenance Teams.
7. Agribusiness professionals focusing on oilseed products.
8. Entrepreneurs and consultants in oilseed processing and refining.

Course Duration: 5 days

Course Modules

Module 1: Introduction to Oilseed Processing

- Types of oilseeds and their chemical composition.
- Overview of oil extraction methods.
- Role of oilseed processing in the agribusiness sector.
- Key industry standards and regulatory requirements.
- Process flow diagrams and production workflow.
- Case Study: Comparative analysis of mechanical vs. solvent extraction efficiency.

Module 2: Mechanical Extraction Techniques

- Screw pressing technology.
- Expeller design and optimization.
- Pre-treatment methods for maximum yield.
- Oilseed conditioning and preparation.
- Troubleshooting common mechanical issues.
- Case Study: Improving yield efficiency in sunflower oil extraction.

Module 3: Solvent Extraction Methods

- Principles of solvent extraction.
- Types of solvents and their efficiency.
- Multi-stage extraction processes.
- Safety and environmental considerations.
- Post-extraction meal processing.
- Case Study: Optimizing hexane extraction in soybean oil production.

Module 4: Oil Refining Processes

- Degumming and neutralization.
- Bleaching and filtration techniques.
- Deodorization and finishing.
- Quality control parameters.
- Automation in refining plants.
- Case Study: Reducing impurities in palm oil refining.

Module 5: Quality Control and Analysis

- Physical and chemical testing methods.
- Standardization of oil products.
- Shelf-life and stability assessment.
- Sensory evaluation of oils.
- Regulatory compliance in quality assurance.
- Case Study: Implementing ISO standards in an edible oil plant.

Module 6: Waste Management and By-product Utilization

- Handling oilseed cakes and residues.

- Biodiesel production from by-products.
- Composting and organic fertilizer options.
- Environmental impact and sustainability.
- Cost-benefit analysis of waste utilization.
- Case Study: Value addition from sunflower meal in animal feed.

Module 7: Process Optimization and Energy Efficiency

- Process monitoring and control systems.
- Energy conservation techniques.
- Reducing production downtime.
- Lean manufacturing in oilseed processing.
- Benchmarking best practices in operational efficiency.
- Case Study: Energy-saving initiatives in soybean oil processing.

Module 8: Emerging Technologies and Innovations

- Cold pressing and supercritical extraction.
- Nanofiltration and advanced refining technologies.
- Digitalization and smart factories in oilseed processing.
- Trends in high-value oils and specialty products.
- Future challenges and opportunities in the sector.
- Case Study: Adoption of innovative refining technology in palm oil production.

Training Methodology

- Interactive lectures with practical demonstrations.
- Hands-on sessions on machinery and process operations.
- Group discussions and problem-solving exercises.
- Live process monitoring and data analysis.
- Case study evaluations for real-world understanding.
- Assessment and feedback for continuous improvement.

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